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Smith Inst

UNITED STATES
EXPLORING EXPEDITION.

DURING THE YEARS

1838, 1839, 1840, 1841, 1842.

UNDER THE COMMAND OF

CHARLES WILKES, U. S. N.

ATLAS.

BOTANY.

CRYPTOGAMIA.

FILICES,

INCLUDING LYCOPODIACEÆ AND HYDROPTERIDES.

BY

WILLIAM D. BRACKENRIDGE.

BY AUTHORITY OF CONGRESS.

PHILADELPHIA:

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EXPLANATION OF PLATES.

PLATE 1.

Fig. 1. *POLYPODIUM SUBSPATHULATUM*. Plant, of the natural size; 1 *a*, section of a frond, with a single sorus; 1 *b*, echinate sporangium. The details more or less magnified.

Fig. 2. *POLYPODIUM CONFORME*. Plant, of the natural size; 2 *a*, section of a frond, with a single sorus; 2 *b*, echinate sporangium. The details magnified.

Fig. 3, 3. *POLYPODIUM MINIMUM*. Plants, of the natural size; 3 *a*, section of the fertile part of a frond; 3 *b*, sporangium. The details more or less magnified.

Fig. 4, 4. *POLYPODIUM HAALILIOANUM*. Plants, of the natural size; 4 *a*, section of a frond, with a single sorus; 4 *b*, glandular hairs mixed with the sporangia; 4 *c*, sporangium. The details more or less magnified.

PLATE 2.

Fig. 1. *POLYPODIUM CONTIGUUM*. Plant, of the natural size; 1 *a*, section of a frond, showing sori; 1 *b*, hairs from among the sporangia; 1 *c*, hairs from the under side of the rhachis; 1 *d*, sporangium and spores. The details more or less magnified.

Fig. 2. *POLYPODIUM DECORUM*. Plant, of the natural size; 2 *a*, portion of a frond; 2 *b*, hairs from under side of the rhachis; 2 *c*, hairs from among the sporangia; 2 *d*, sporangium. The details all more or less magnified.

Fig. 3, 3. *POLYPODIUM SARMENTOSUM*. Plants, of the natural size; 3 *a*, section of a segment, with a sorus; 3 *b*, hairs from among sporangia; 3 *c*, hairs from under surface of frond; 3 *d*, sporangium. The details more or less magnified.

PLATE 3.

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PLATE 4.

Fig. 1. *GYMNOGRAMMA PILOSUM*. Portion of a frond, natural

size; 1 *a*, section of a pinna, showing the sori; 1 *b*, hairs from the rhachis beneath; 1 *c*, *c*, sporangia. The analyses magnified.

Fig. 2. *STEGNOGRAMMA SANDWICENSE*. Portion of the middle of a frond; 2 *a*, *a*, sections of a pinna, showing the sori; 2 *b*, *b*, sporangia. The details more or less magnified.

PLATE 5.

Fig. 1. *GONIOPTERIS LONGISSIMA*. Portion of a frond, of the natural size; *a*, section of a segment, showing the sori; *b*, scale from the rhachis; *c*, sporangium. The details more or less magnified.

PLATE 6.

Fig. 1. *DRYNARIA ALATA*. Entire frond, natural size; *a*, *a*, *a*, sections of a pinna, showing the venation and sori; *b*, *b*, sporangia. The details more or less magnified.

PLATE 7.

Fig. 1. *DRYNARIA MAXIMA*. Summit of a frond, of the natural size; *a*, entire frond, one-fourth of the natural size; *b*, *b*, section of a frond, showing the sori and venation; *c*, *c*, vertical section of the same, showing the partially sunken sori; *d*, *d*, sporangia. The details more or less magnified.

PLATE 8.

Fig. 1, 1. *HEMIONITIS ELONGATA*. Plants, of the natural size; *a*, cross section of the stipe; *b*, hairs from the base of the stipe; *c*, section of a pinna; *d*, articulated hairs mixed with the sporangia; *e*, *e*, sporangia. The details magnified.

PLATE 9.

Fig. 1. *ELAPHOGLOSSUM SAMCENSE*. Plant, of the natural size. 1 *a*, sporangia; 1 *b*, sporules. The details magnified.

Fig. 2. *ELAPHOGLOSSUM LONGIPES*. Portion of a plant, of the natural size; 2 *a*, *a*, scales from the stipe. The details magnified.

Fig. 3. *ELAPHOGLOSSUM NITIDUM*. Plant, of the natural size; 3 *a*, scale from the rhizoma; 3 *b*, scales from the stipe; 3 *c*, sporangium. The details magnified.

PLATE 10.

Fig. 1. 1. *POLYBOTRYA WILKESIANA*. Fronds, of the natural size; *a*, fertile pinnule; *b*, sterile pinnule; *c*, scales, from the rhachis; *d*, sporangium. The details magnified.

PLATE 11.

Fig. 1. *STENOCHLOENA FEEJEENSIS*. Portion of a plant, natural size; 1 *a*, pinna, to show the venation; 1 *b*, scale from the rhizoma. The details magnified.

Fig. 2. *CYRTOGONIUM RIVULARE*. Plant, of the natural size; 2 *a*, a scale from the stipe; 2 *b*, *b*, sporangia. The details magnified.

PLATE 12.

Fig. 1. *LOMAGRAMMA? POLYPHYLLA*. A pinna, showing its articulation with the rhachis, of the natural size; 1 *a*, under side of pinnule; 1 *b*, scales from the rhachis beneath. The details magnified.

Fig. 2. 2. *CYRTOGONIUM PALUSTRE*. Sterile and fertile fronds, of the natural size; 2 *a*, cross section of the stipe; 2 *b*, scale, from the stipe; 2 *c*, *c*, sporangia. The details magnified.

PLATE 13.

Fig. 1. *DORYOPTERIS DECORA*. Entire plant, of the natural size; 1 *a*, section of a segment, showing the venation and sori; 1 *b*, scale, from the base of the stipe; 1 *c*, *c*, sporangia; 1 *d*, sporules. The details magnified.

Fig. 2. *ONYCHIUM DENSUM*. Entire plant, of the natural size; 2 *a*, section of a pinnule; 2 *b*, sporangia; 2 *c*, sporules. The details magnified.

PLATE 14.

Fig. 1. *LITOBROCHIA SINUATA*. Portion of a frond, of the natural size; *a*, section of a pinnule, showing the under side; *b*, *b*, sporangia. The details magnified.

PLATE 15.

Fig. 1. 1. *LOMARIA PILOSA*. Sterile and fertile fronds, of the natural size; *a*, section of the stipe, at the base; *b*, section, showing the under side of a sterile pinna; *c*, section, showing the sporangia and receptacle; *d*, scale from the base of the stipe; *e*, hairs from veins on the under side. The details magnified.

PLATE 16.

Fig. 1. 1. *BLECHNUM VITTATUM*. Sterile and fertile fronds, one-

half their natural size; *a*, section of a sterile frond, of the natural size; *b*, section of the fertile frond, of the natural size; *c*, section of a stipe, showing the stripes, of the natural size; *d*, section of a pinna, showing sporangia and receptacle; *e*, scales from base of the stipe; *f*, sporangia. The details more or less magnified.

PLATE 17.

Fig. 1. *DICLIDOPTERIS ANGUSTISSIMA*. Plant, of the natural size; *a*, portion of a frond, showing the sori; *b*, similar portion with the indusium removed on one side; *c*, cross section of a sterile frond; *d*, cross section of a fertile frond, showing the position of the sporangiferous receptacle; *e*, a similar section, showing a single receptacle only on one side of the costa; *f*, *f*, sporangia; *g*, sporules. The details magnified.

PLATE 18.

Fig. 1. *DIPLAZIUM BULBIFERUM*. Frond, of the natural size; 1 *a*, cross section of the stipe; 1 *b*, scale from the base of the stipe; 1 *c*, section of a pinna, showing a binate indusium; 1 *d*, sporangia. The details more or less magnified.

Fig. 2. *DIPLAZIUM CONGRUUM*. Frond, of the natural size; 2 *a*, cross section of the stipe; 2 *b*, scale from the stipe; 2 *c*, section of a pinna, showing a binate indusium; 2 *d*, sporangia. The details more or less magnified.

PLATE 19.

Fig. 1. *ASPLENIUM FEEJEENSE*. Frond, of the natural size; 1 *a*, scale from under side of the costa; 1 *b*, sporangium. The details magnified.

Fig. 2. *ASPLENIUM AMBOINENSE*, Willd. Fronds, of the natural size; 2 *a*, section of a frond, showing the proliferous bud at the point; 2 *b*, section of a frond, showing the indusium; 2 *c*, scale from the base of the stipe; 2 *d*, sporangium; 2 *e*, sporules. The details more or less magnified.

PLATE 20.

Fig. 1. *ASPLENIUM PAVONICUM*. Plant, of the natural size; 1 *a*, pinna, showing the indusium; 1 *b*, sporangia. The details magnified.

Fig. 2. *ASPLENIUM MONANTHEMUM*, Sm. Plant, of the natural size; 2 *a*, a pinna, magnified.

Fig. 3. *ASPLENIUM DENSUM*. Portion of a plant, of the natural size; 3 *a*, portion of the frond; magnified.

PLATE 21.

Fig. 1. *ASPLENIUM ENATUM*. Frond, of the natural size; 1 *a*, section of a pinna, showing the indusium; 1 *b*, *b*, sporangia. The details magnified.

Fig. 2. *ASPLENIUM RHOMBOIDEUM*. Fronds, of the natural size; 2 *a*, under side of a pinna, showing the indusium; magnified.

Fig. 3. *ASPLENIUM CRISTATUM*. A frond, of the natural size; 3 *a*, under side of a pinnule, showing the indusium; magnified.

PLATE 22.

Fig. 1. *ASPLENIUM FALCATUM*, var. *β. attenuatum*. 1 *a*, section of a pinna; 1 *b*, section of the same, showing an indusium and the insertion of the sporangia; 1 *c*, scale from base of a stipe; 1 *d*, sporangia. The details magnified.

Fig. 2. *ASPLENIUM INSITICUM*. 2 *a*, under side of a pinnule; 2 *b*, section of a pinnule, showing the indusium and insertion of the sporangia; 2 *c*, scale from the base of a stipe; 2 *d*, sporangium. More or less magnified.

PLATE 23.

Fig. 1. *ASPLENIUM STRICTUM*. Plant, of the natural size; 1 *a*, pinna; 1 *b*, portion of a pinna, showing the indusium. The details more or less magnified.

Fig. 2. *ASPLENIUM MULTIFIDUM*. Portion of a frond, of the natural size; 2 *a*, a segment, showing the indusium; 2 *b*, sporangia. The details magnified.

PLATE 24.

Fig. 1. *ASPLENIUM DISSECTUM*. Frond, of the natural size; *a*, pinnule, showing the indusium; *b*, a scale, from the base of stipe; *c*, sporangium. The details more or less magnified.

PLATE 25.

Fig. 1. *NEPHRODIUM HUDSONIANUM*. Portions of a frond, of the natural size; *a*, section of a pinna, showing the position of the sori, and the tubercles on the under surface; *b*, sorus; *c*, indusium; *d*, *d*, sporangia; *e*, sporules. The details magnified.

PLATE 26.

Fig. 1. *LASTREA ARTICULATA*. Fronds, of the natural size; 1 *a*, upper side of a pinna; 1 *b*, a small portion of the same, seen from beneath, with a perfect sorus; 1 *c*, sporangium. The details more or less magnified.

Fig. 2. *LASTREA ATTENUATA*. Upper half of a frond, of the natural size; 2 *a*, section of a segment, under side, with a perfect sorus; 2 *b*, section of the costa, showing the hairs of the upper side; 2 *c*, 2 *c*, sporangia. The details more or less magnified.

PLATE 27.

Fig. 1. *LASTREA TRUNCATA*. Frond, of the natural size; *a*, dorsal view of a portion of a pinna; *b*, section of a segment, with a single sorus; *c*, smaller portion of the same, showing the insertion of the sporangia; *d*, scale from the rhachis; *e*, *e*, sporangia. The details all more or less magnified.

PLATE 28.

Fig. 1. *POLYSTICHUM HALEAKALENSE*. Plant, of the natural size; *a*, pinnule, showing its under surface; *b*, dorsal view of a

small portion of the same, with a single entire sorus; *c*, the indusium, with a scale in its centre; *d*, a scale, from the costa; *e*, a scale from the stipe; *f*, *f*, sporangia. The details all more or less magnified.

PLATE 29.

Fig. 1. *OLEANDRA HIRTA*. Portion of the plant, of the natural size; *a*, section of a frond; *b*, smaller portion, with a single sorus; *c*, scales from the rootstock; *d*, hairs from the surface of the frond; *e*, *e*, sporangia. The details more or less magnified.

PLATE 30.

Fig. 1. *SCHIZOLOMA AGATHI*. Frond, of the natural size; 1 *a*, section of a pinna, with the indusium turned back, to show the sporangia; 1 *b*, scales from the base of the stipe; 1 *c*, sporangium; 1 *d*, sporules. Details more or less magnified.

Fig. 2. *SYNAPHLEBIUM PICKERINGII*. Portion of a plant, of the natural size; 2 *a*, a pinna, slightly magnified, to show the anastomosing venules; 2 *b*, dorsal view of a lobe, with a single sorus, and a portion of the indusium turned back to show the sporangia; 2 *c*, a sporangium. The details more or less magnified.

PLATE 31.

Fig. 1. *DIELLIA FALCATA*. Portion of a plant, of the natural size; 1 *a*, dorsal view of a section of a pinna; 1 *b*, scale from the stipe; 1 *c*, 1 *c*, sporangia. The details magnified.

Fig. 2. *DIELLIA ERECTA*. A frond, of the natural size; 2 *a*, dorsal view of a section of a fertile pinna; 2 *b*, 2 *b*, sporangia. The details magnified.

PLATE 32.

Fig. 1. *HUMATA POLYPODIOIDES*. Portion of a plant, of the natural size; 1 *a*, dorsal view of a portion of the sterile frond, showing the venation; 1 *b*, same view of a portion of the fertile frond, showing the form of the indusium; 1 *c*, single sorus, with the indusium cut away, to show the insertion of the sporangia; 1 *d*, scale from the rootstock; 1 *e*, sporangium. The details more or less magnified.

Fig. 2. *HUMATA BOTRYCHOIDES*. Portion of a plant, of the natural size; 2 *a*, dorsal view of a portion of a sterile frond, showing its venation; 2 *b*, portion of a fertile frond, showing the sori, with and without the indusium; 2 *c*, scale from the rootstock; 2 *d*, sporangium. The details more or less magnified.

PLATE 33.

Fig. 1. *MICROLEPIA INEQUALIS*, Presl; var. *minor*. A portion of a frond, of the natural size; *a*, view of a portion of an ultimate pinna, from underneath; *b*, a single sorus, showing the form of the indusium; *c*, a single sorus, with the indusium removed, so as to show the insertion of the sporangia; *d*, *d*, sporangia. The details more or less magnified.

PLATE 34.

Fig. 1. *MICROLEPIA PAPILLOSA*. A portion of a frond, of the natural size; *a*, view of the under side of a smaller portion of the same, showing the tubercles; *b*, smaller portion, showing a single sorus, with the special indusium removed; *c*, *c*, sporangia; *d*, sporules. The details more or less magnified.

PLATE 35.

Fig. 1. *DAVALLIA PENTAPHYLLA*, Blume. Portion of a plant, of the natural size; 1 *a*, dorsal view of a section of a pinna; 1 *b*, section of the rootstock; 1 *c*, scale, from the rootstock; 1 *d*, a single sorus, with the special indusium removed; 1 *e*, sporangium; 1 *f*, sporules. The details more or less magnified.

Fig. 2. *DAVALLIA PYCNOCARPA*. Portion of a plant, of the natural size; 2 *a*, view of a portion of a pinna, from below; 2 *b*, cross section of the rhizoma; 2 *c*, a scale, from the same; 2 *d*, a sorus, with the special indusium removed; 2 *e*, sporangium. The details more or less magnified.

PLATE 36.

Fig. 1. *TRICHOMANES ERECTUM*. Plant, of the natural size; 1 *a*, view of a portion of a frond, from beneath, slightly magnified.

Fig. 2. *TRICHOMANES TENUE*. Portion of a plant, of the natural size; 2 *a*, dorsal view of a portion of a frond, slightly magnified.

Fig. 3. *TRICHOMANES DRAYTONIANUM*. Portion of a plant, of the natural size; 3 *a*, view of a portion of a frond underneath, slightly magnified.

Fig. 4. *TRICHOMANES ALBUM*, Blume. Portion of a plant, of the natural size; 4 *a*, view of a portion of a frond underneath, slightly magnified.

Fig. 5. *TRICHOMANES CAUDATUM*. Frond, of the natural size; 5 *a*, view of a portion of the same, from beneath; 5 *b*, sorus, with part of the indusium removed; 5 *c*, sporangia. The details more or less magnified.

PLATE 37.

Fig. 1. *HYMENOPHYLLUM AFFINE*. Plant, of the natural size; 1 *a*, portion of the same, seen from beneath; 1 *b*, view of a single sorus, with one-half of the indusium removed; 1 *c*, sporangium. The details more or less magnified.

Fig. 2. *HYMENOPHYLLUM FEEJEENSE*. Plant, of the natural size; 2 *a*, portion of a frond, seen from beneath; 2 *b*, view of a sorus, with one half of the indusium removed; 2 *c*, sporangia. The details more or less magnified.

Fig. 3. *HYMENOPHYLLUM FORMOSUM*. Frond, of the natural size; 3 *a*, portion of the same; 3 *b*, a single sorus, with the indusium removed; 3 *c*, a sporangium. More or less magnified.

PLATE 38.

Fig. 1. *SITOLBIUM SAMOENSE*. Part of a frond, of the natural size; 1 *a*, dorsal view of a portion of the same; 1 *b*, smaller portion, showing a single sorus; 1 *c*, sporangium. The details more or less magnified.

Fig. 2. *DICKSONIA TORREYANA*. Portion of a frond, of the natural size; 2 *a*, a portion of the same, seen from beneath; 2 *b*, smaller portion, with a single sorus; 2 *c*, a sporangium. The details more or less magnified.

PLATE 39.

Fig. 1. *ALSOPHILA LUNULATA*, R. Br.? Portion of a frond, of the natural size; *a*, dorsal view of a portion of the main rachis; *b*, dorsal view of a small portion of the frond; *c*, *c*, hairs from veins on the under side; *d*, scales from the under side of the costa; *e*, vertical section of a sorus; *f*, hairs from the receptacle; *g*, sporangium. The details more or less magnified.

PLATE 40.

Fig. 1. *ALSOPHILA SAMOENSIS*. Portion of a frond, of the natural size; 1 *a*, small portion of the frond, seen from below; 1 *b*, small portion of the costa of a pinnule, seen from above; 1 *c*, hairs from the costa; 1 *d*, hairs from veins on the under side; 1 *e*, receptacle; 1 *f*, scale from the base of the receptacle; 1 *g*, hairs from the receptacle; 1 *h*, *h*, *h*, sporangia; 1 *i*, sporules. The details more or less magnified.

Fig. 2. *ALSOPHILA TAHITENSIS*. Portion of a frond, of the natural size; 2 *a*, smaller portion of a frond, as seen from beneath; 2 *b*, scale from under side of the costa; 2 *c*, indusium; 2 *d*, vertical section of a sorus; 2 *e*, *e*, sporangia. The details all more or less magnified.

PLATE 41.

Fig. 1. *ALSOPHILA TRUNCATA*. Portion of a frond, of the natural size; *a*, a small portion of the frond, seen from beneath; *b*, scale from the rachis; *c*, *c*, sporangia. The details more or less magnified.

PLATE 42.

Fig. 1. *MERTENSIA EMARGINATA*. Portion of a frond, of the natural size; *a*, a portion of a segment, as viewed from beneath, with part of the wool removed, to show the venation and sori; *b*, sporangia. The details more or less magnified.

PLATE 43.

Fig. 1. *TODEA WILKESIANA*. Entire plant, reduced to a scale of an inch to a foot; *a*, frond, of the natural size; *b*, transverse section of the trunk, of the natural size; *c*, dorsal view of a small portion of the frond; *d*, hairs from the same; *e*, *e*, sporangia; *f*, sporules. Details more or less magnified.

PLATE 44.

Fig. 1. *OPHIOGLOSSUM CONCINNUM*. Plant, of the natural size; 1 *a*, portion of the frond; 1 *b*, portion of the spike. The details magnified.

Fig. 2. *BOTRYCHIUM SUBBIFOLIATUM*. Plant, of the natural size; 2 *a*, a segment; 2 *b*, a portion of a fertile spike; 2 *c*, sporules. The details magnified.

PLATE 45.

Fig. 1. *LYCOPodium ERUBESCENS*. Plant, of the natural size; 1 *a*, section of a stem; 1 *b*, leaf, with a capsule at its base; 1 *c*, spores. The details more or less magnified.

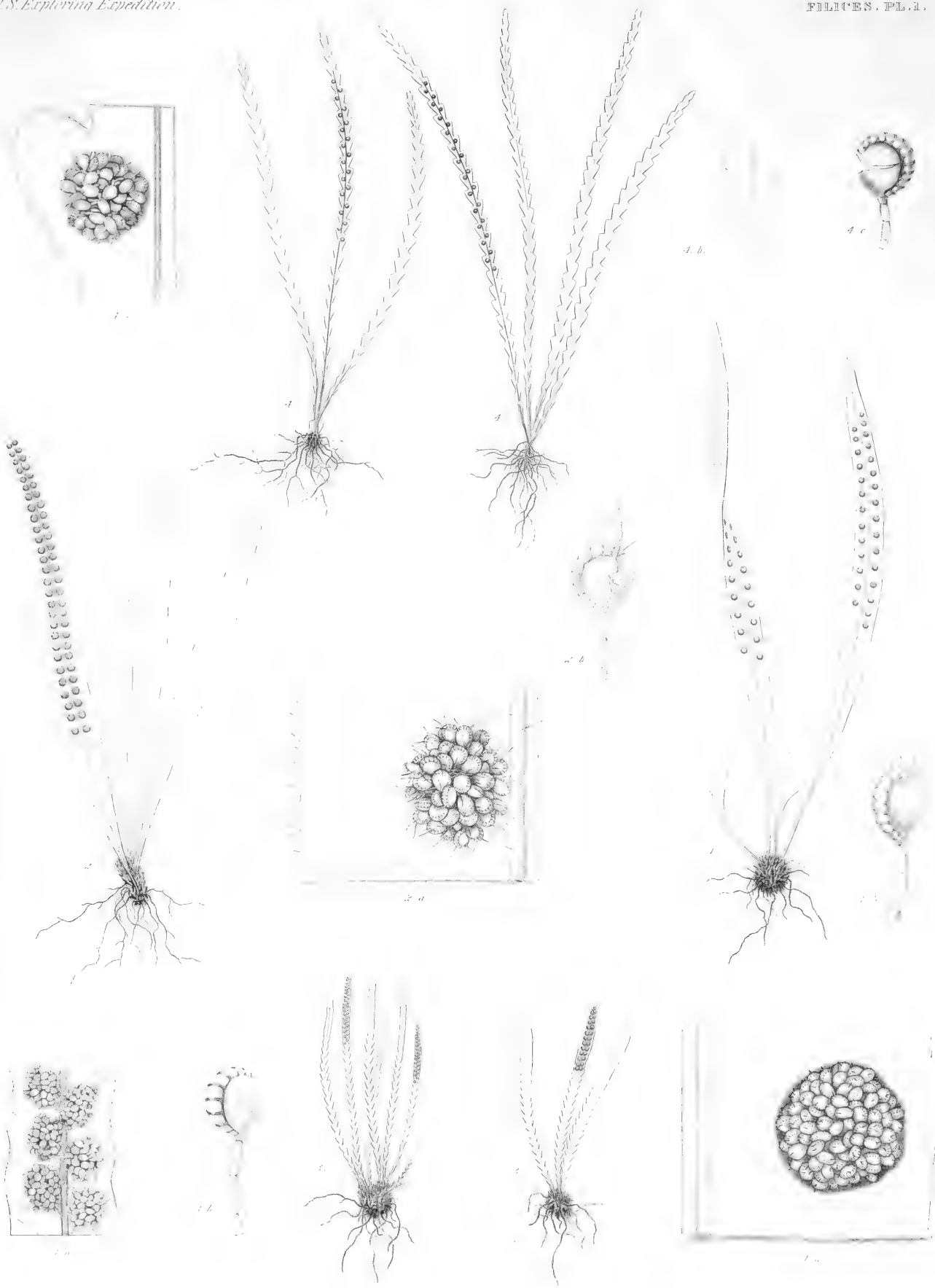
Fig. 2. *LYCOPodium HALEAKALAE*. Plant, of the natural size; 2 *a*, section of a branch; 2 *b*, leaves, with capsules at their base; 2 *c*, spores. The details more or less magnified.

Fig. 3. *SELAGINELLA DEFLEXA*. Plant, of the natural size; 3 *a*, sections of the stem; 3 *b*, antheridium; 3 *c*, oophorium, with a leaf; 3 *d*, oophoria, showing the dehiscence; 3 *e*, grains from the oophoria. The details more or less magnified.

PLATE 46.

Fig. 1. *LYCOPodium NUTANS*. A portion of a plant, of the natural size; *a*, leaf from the stem; *b*, scale from a spike, with a capsule at the base; *c*, cross section of the stem; *d*, a capsule; *e*, spores. The details magnified.

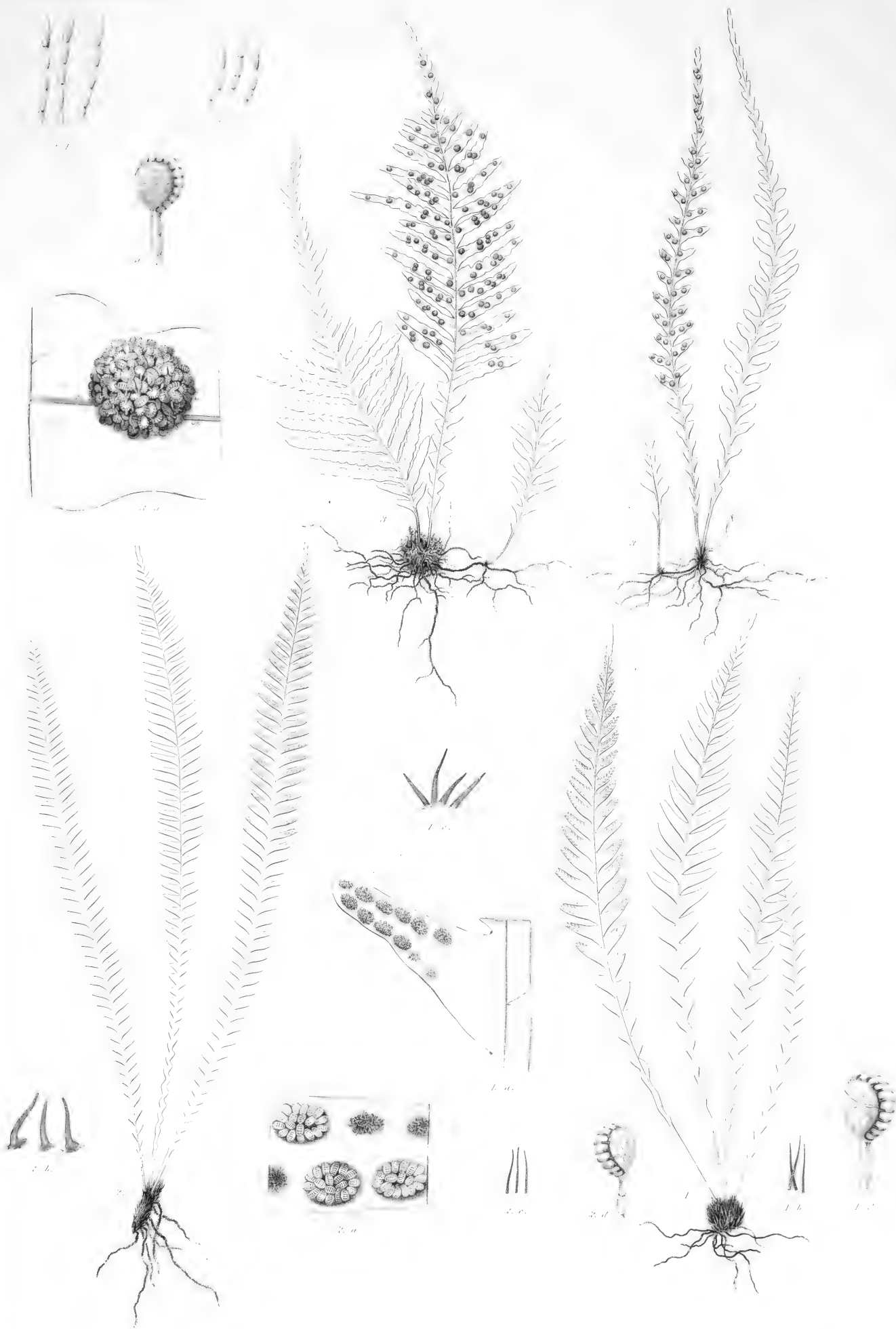




1. 1. a. b. *Polypodium subspathulatum*.
2. 2. a. b. *conforme*.

3. 3. a. b. *Polypodium minimum*.
4. 4. a. b. c. *Hautilioanum*.





11 a.b.c.d. Polypodium contiguum.

22 a.b.c.d. Polypodium decorum.

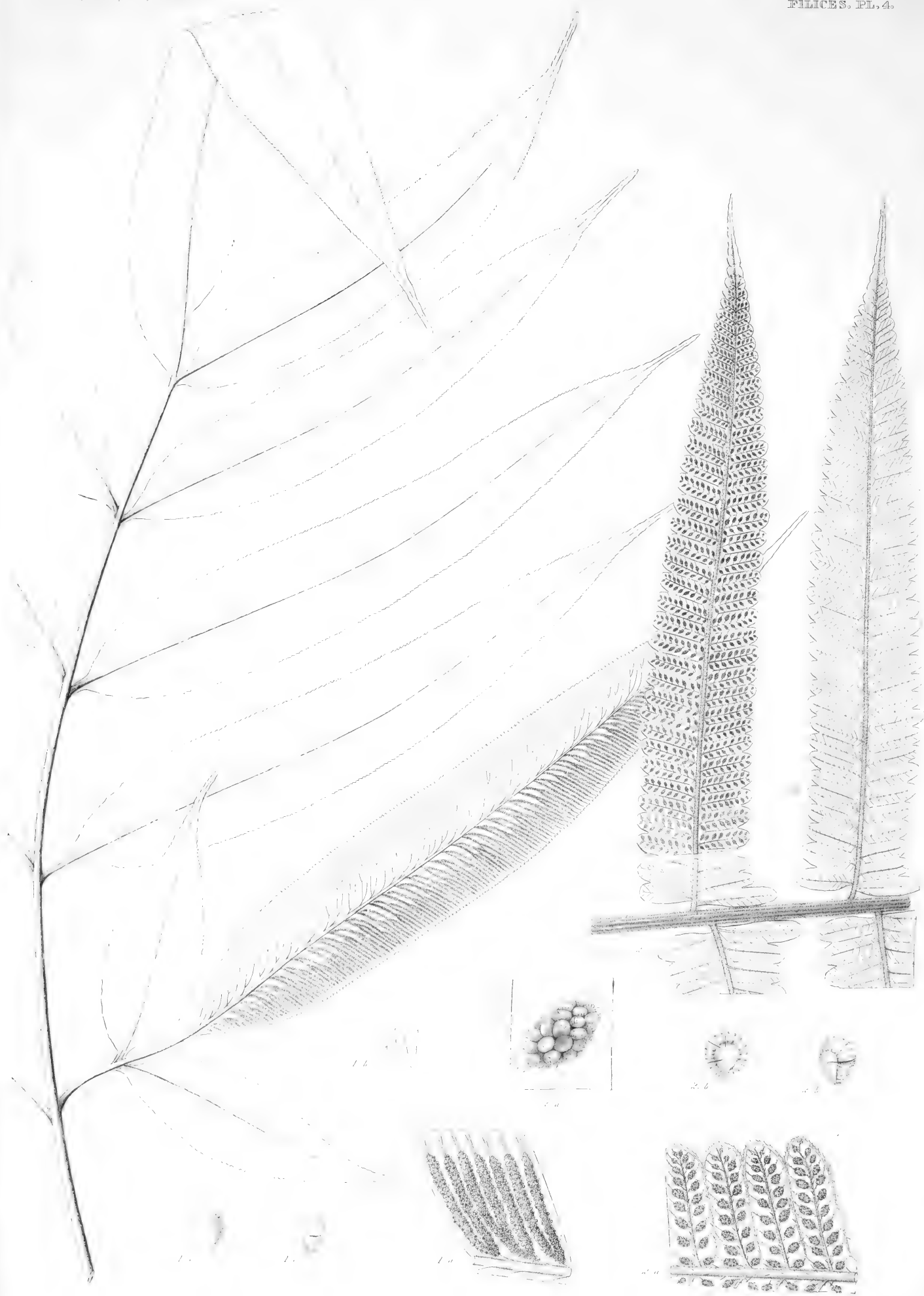
33. a.b.c.d. Polypodium sarmentosum.





1. a. b. c. *Polypodium procerum*.



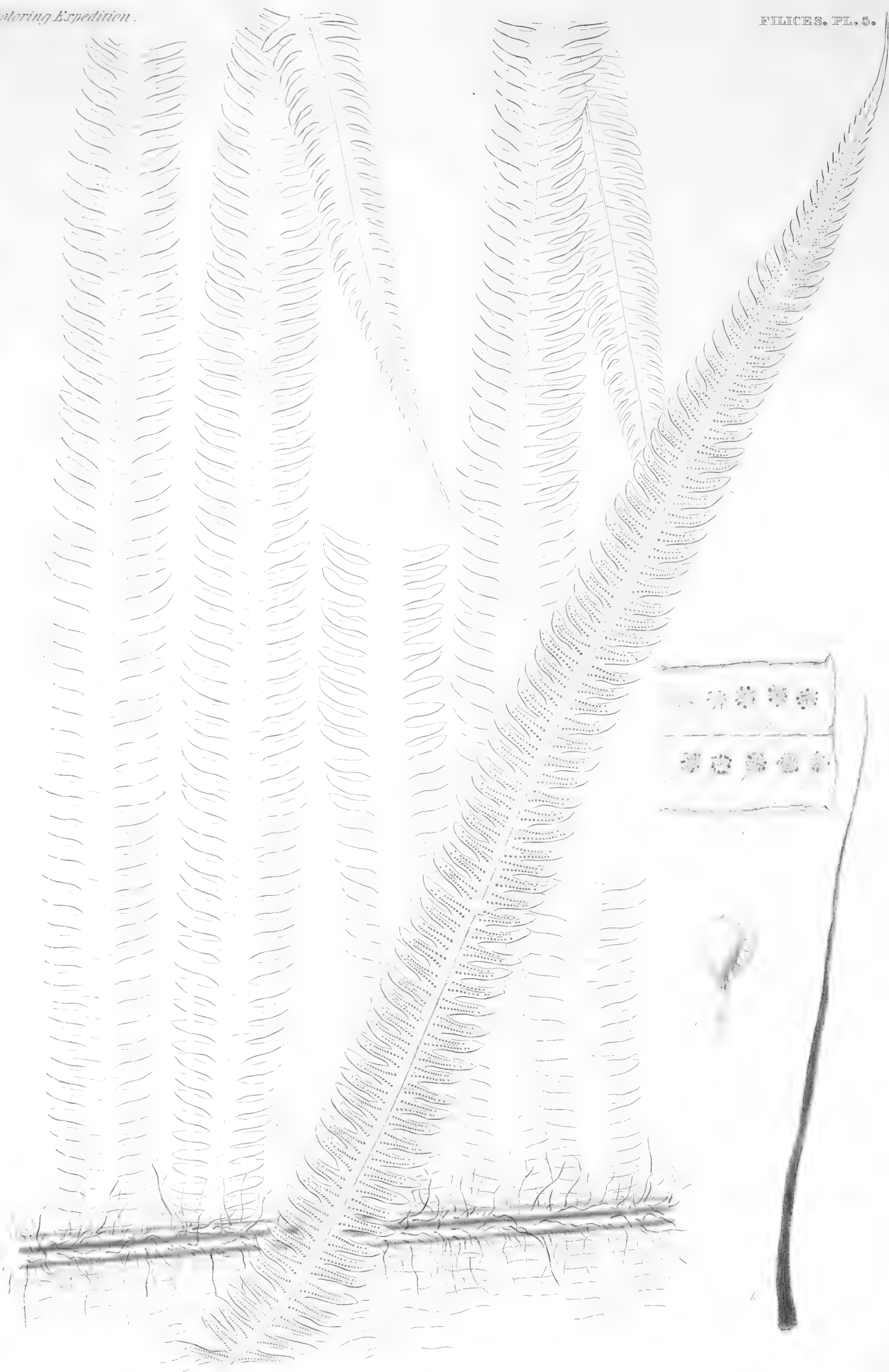


1. 1. a. b. c. *Gymnogramma pilosum*.

2. 2. a. b. c. *Stegogramma Sandwicense*.

J. Bracken. Eber.





1. a. b. c. *Goniopteris longissima*.

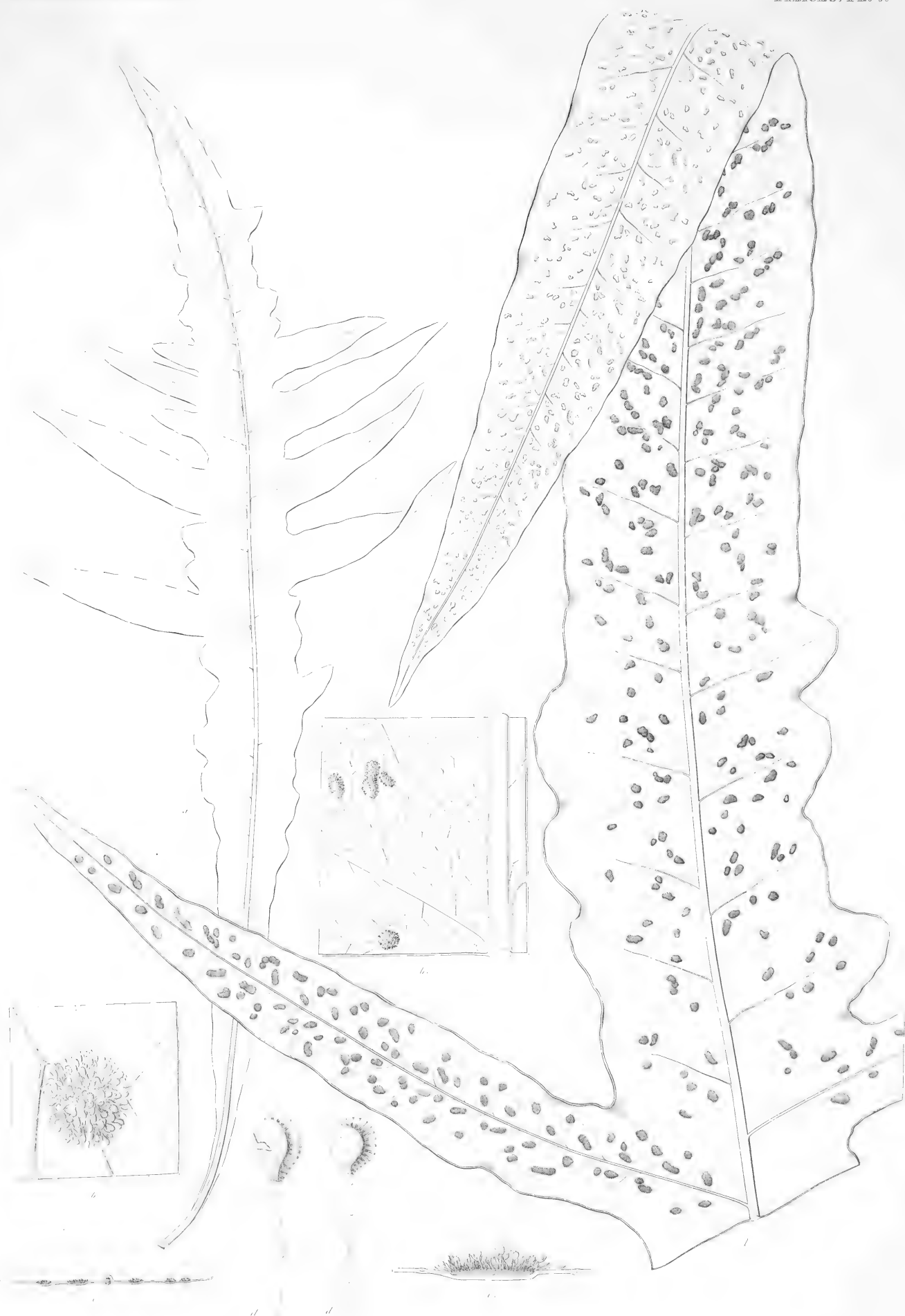
Goniopteris longissima





L. a. a. b. *Dryopteris alata*.





L. a. b. c. e. d. *Dryopteris maxima*.





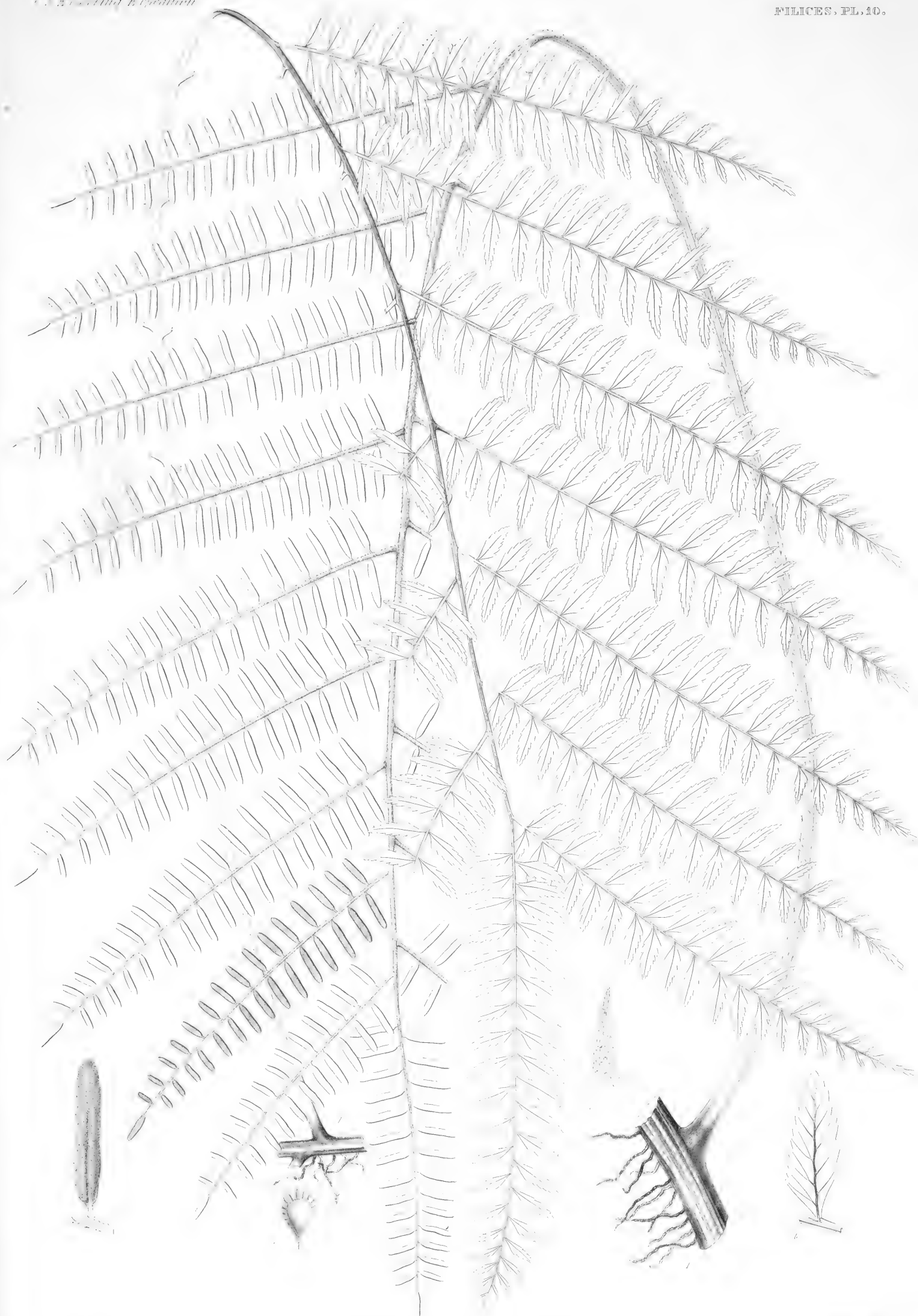
1. a b c d e. *Hemionitis elongata*.





1. 1. a. b. *Elaphoglossum samoense*. 2. 2. a. *Elaphoglossum longipes*. 3. 3. a. b. c. *Elaphoglossum nitidum*.





1. 1, a, b, c, d. Polybotrya Wilkesiana.

Forster, 1845.





2. 2. a.b.b. *Cyrtogonium rivulare* .



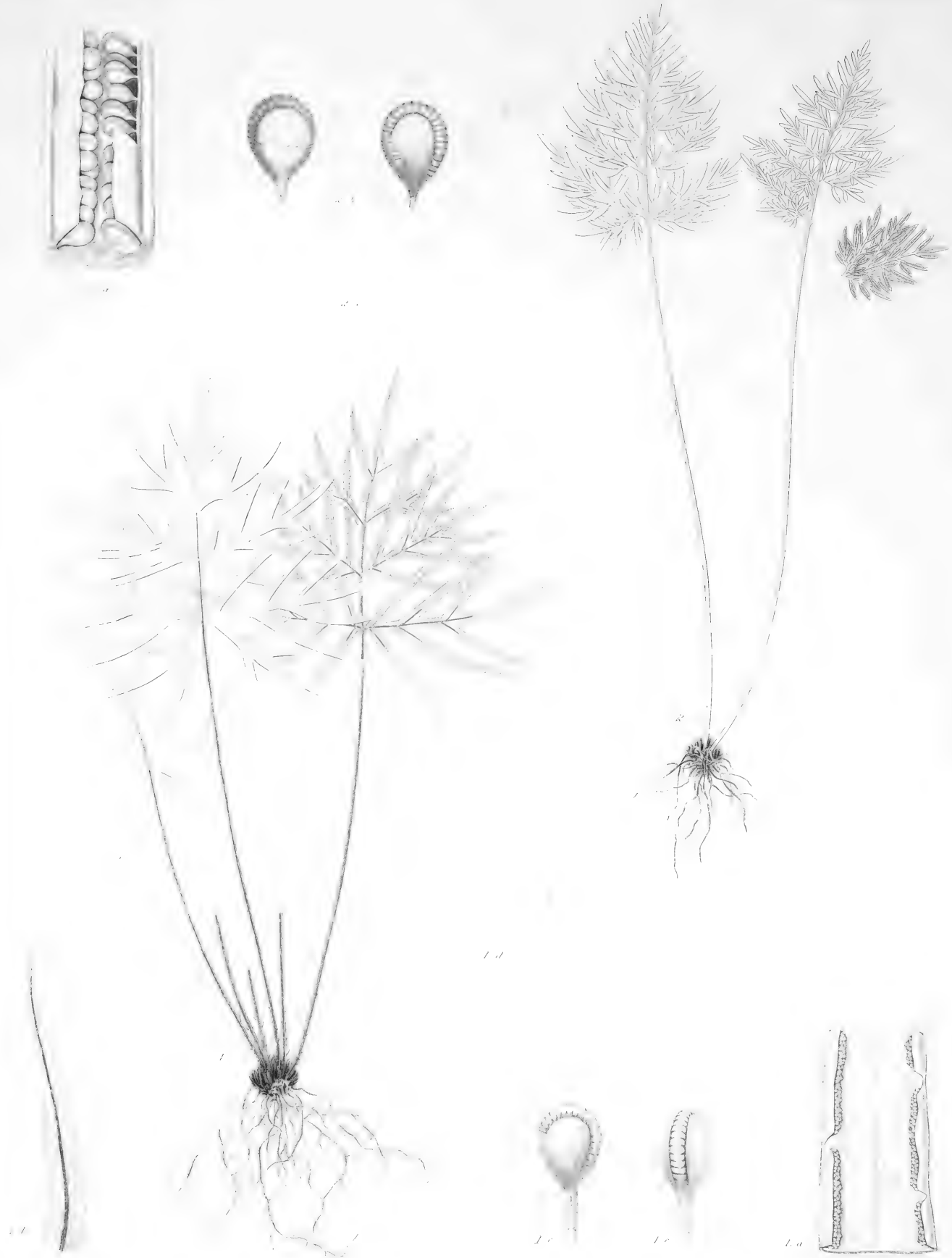


1. 1 a b. *Lomagramma? polyphylla*.

2. 2 a b c c. *Cyrtogonium palustre*.

H. & A.

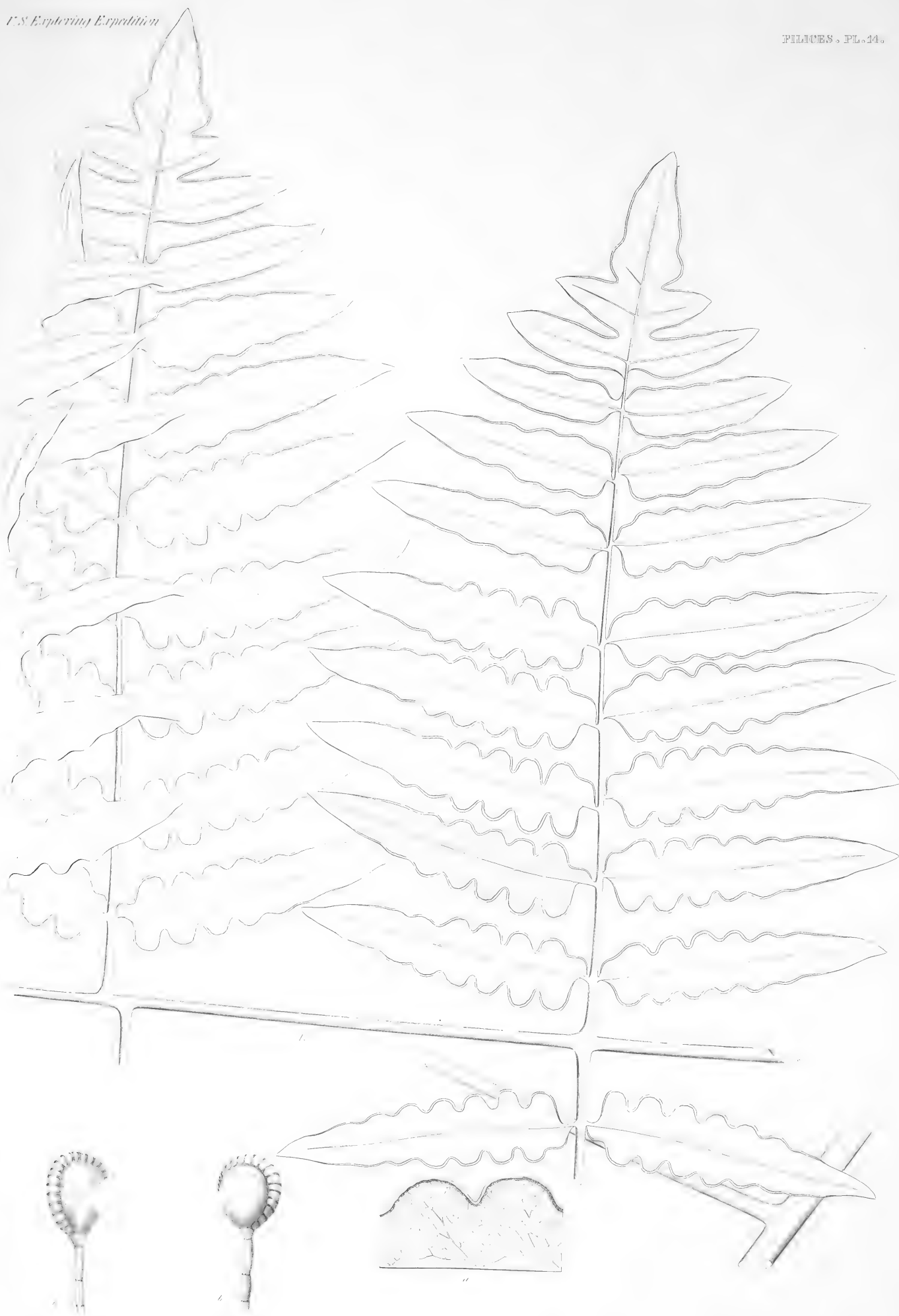




1. 1. a. b. c. d. *Doryopteris decora*.

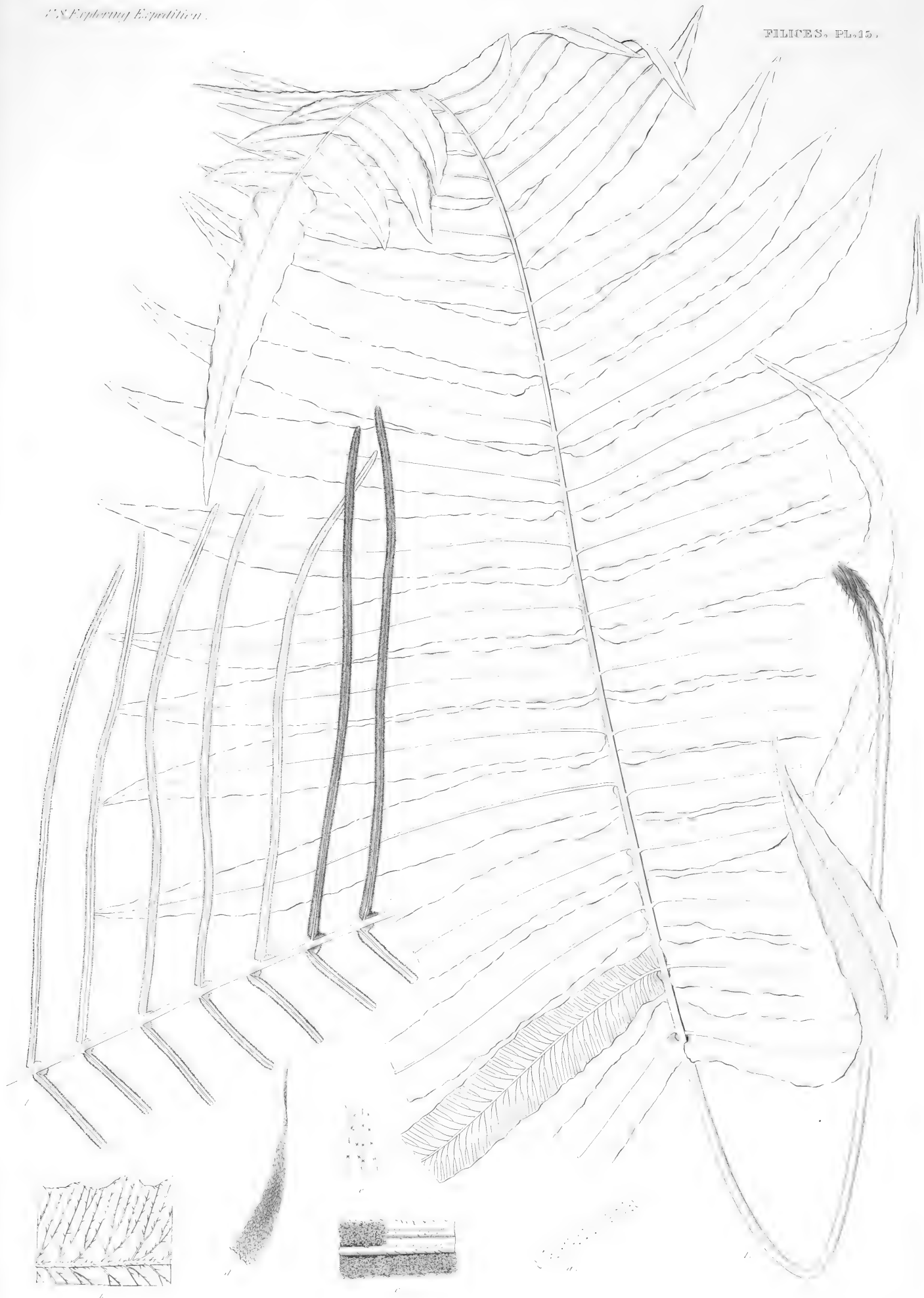
2. 2. a. b. c. *Onychium densum*.





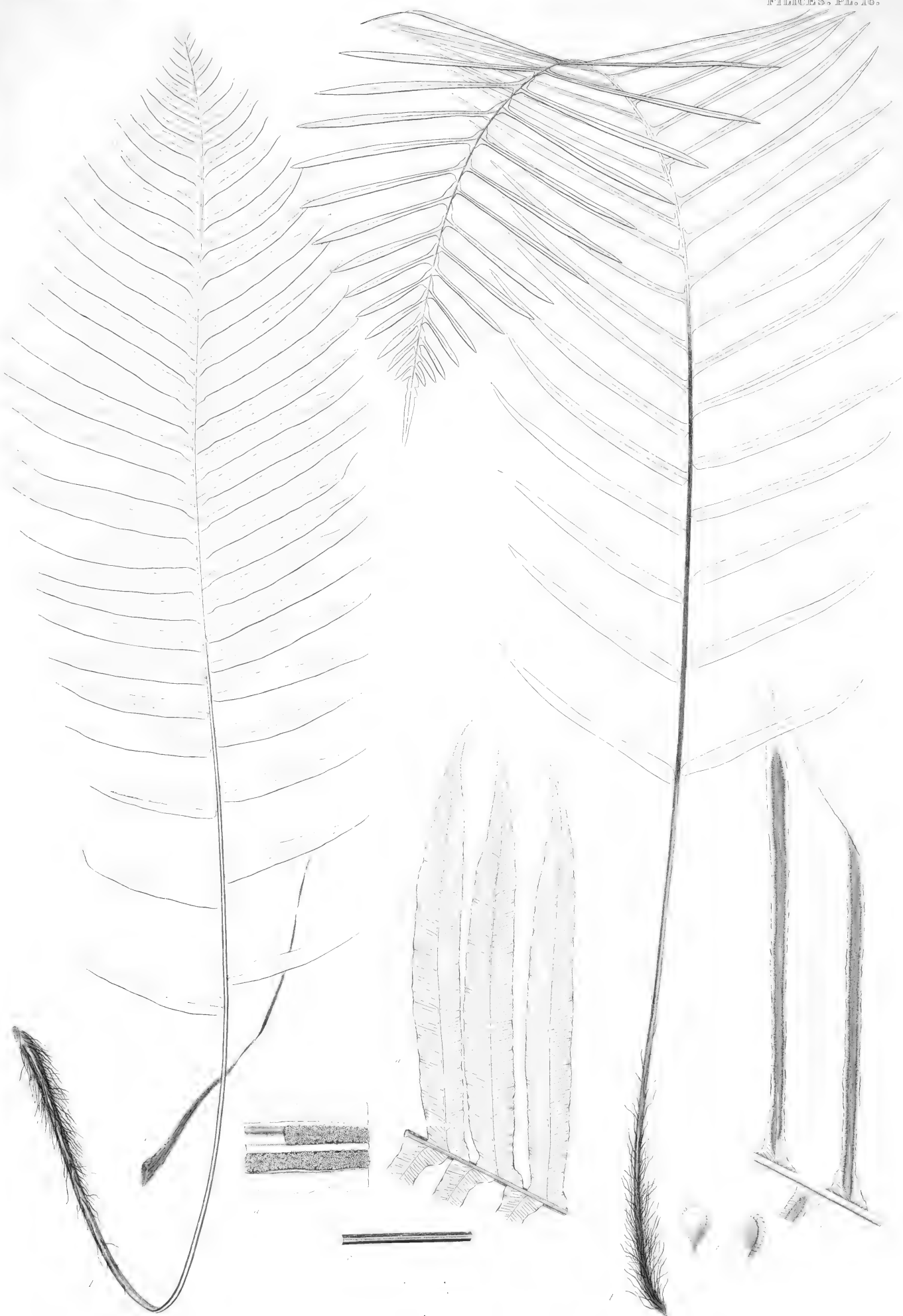
1. a.b.b. *Litobrochia sinuata*.





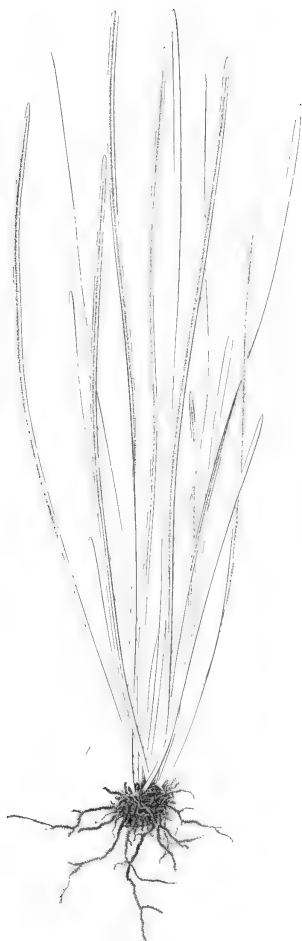
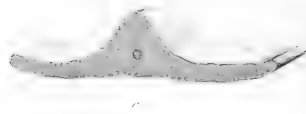
1. 1. a. b. c. d. e. *Lomaria pilosa*.





1. 1. a. b. c. d. e. f. Blechnum vittatum.





f. a. b. c. d. e. f. g. *Diclidopteris angustissima*.

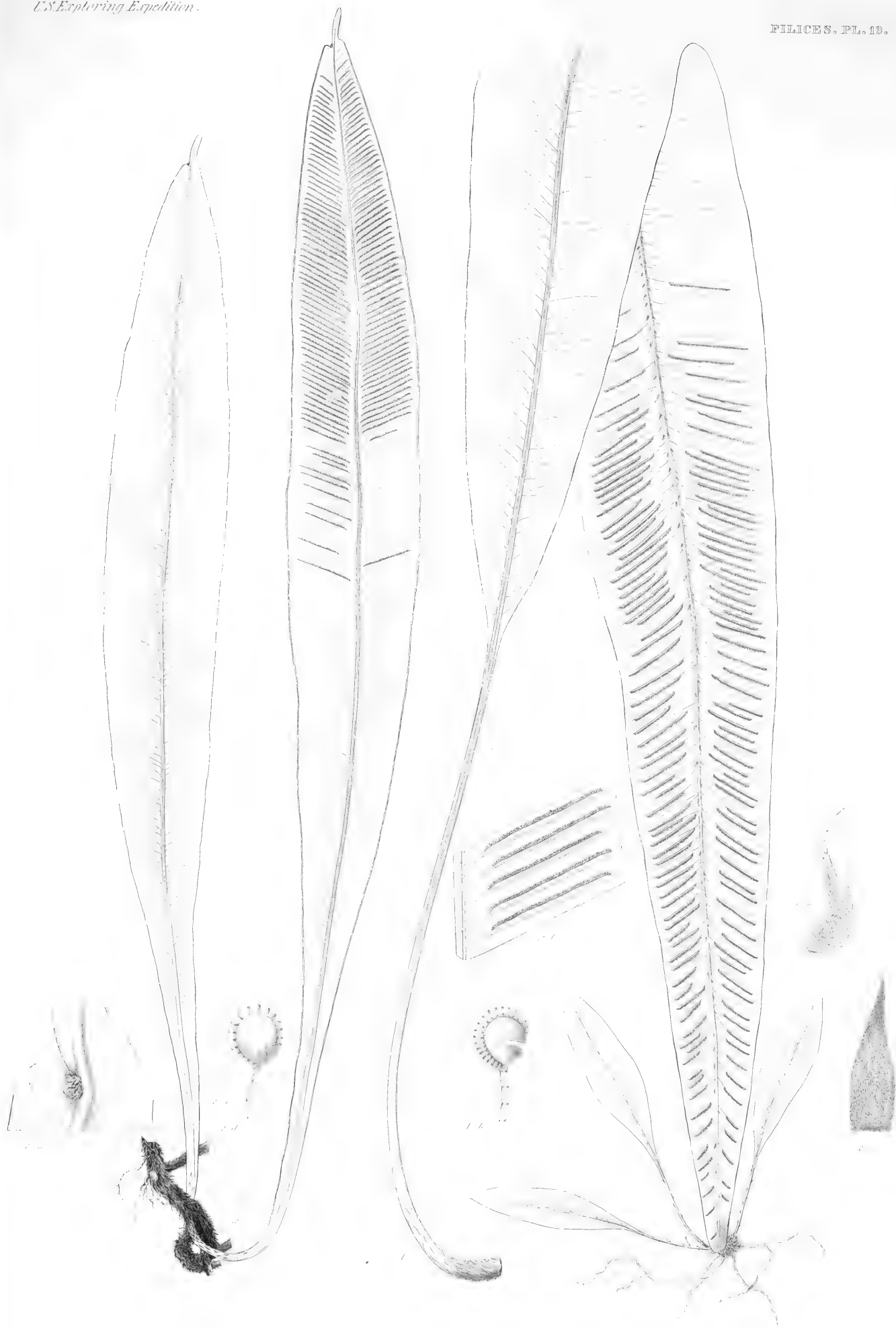




1. 1. a. b. c. d. Diplazium bulbiferum.

2. 2. a. b. c. d. Diplazium congruum.

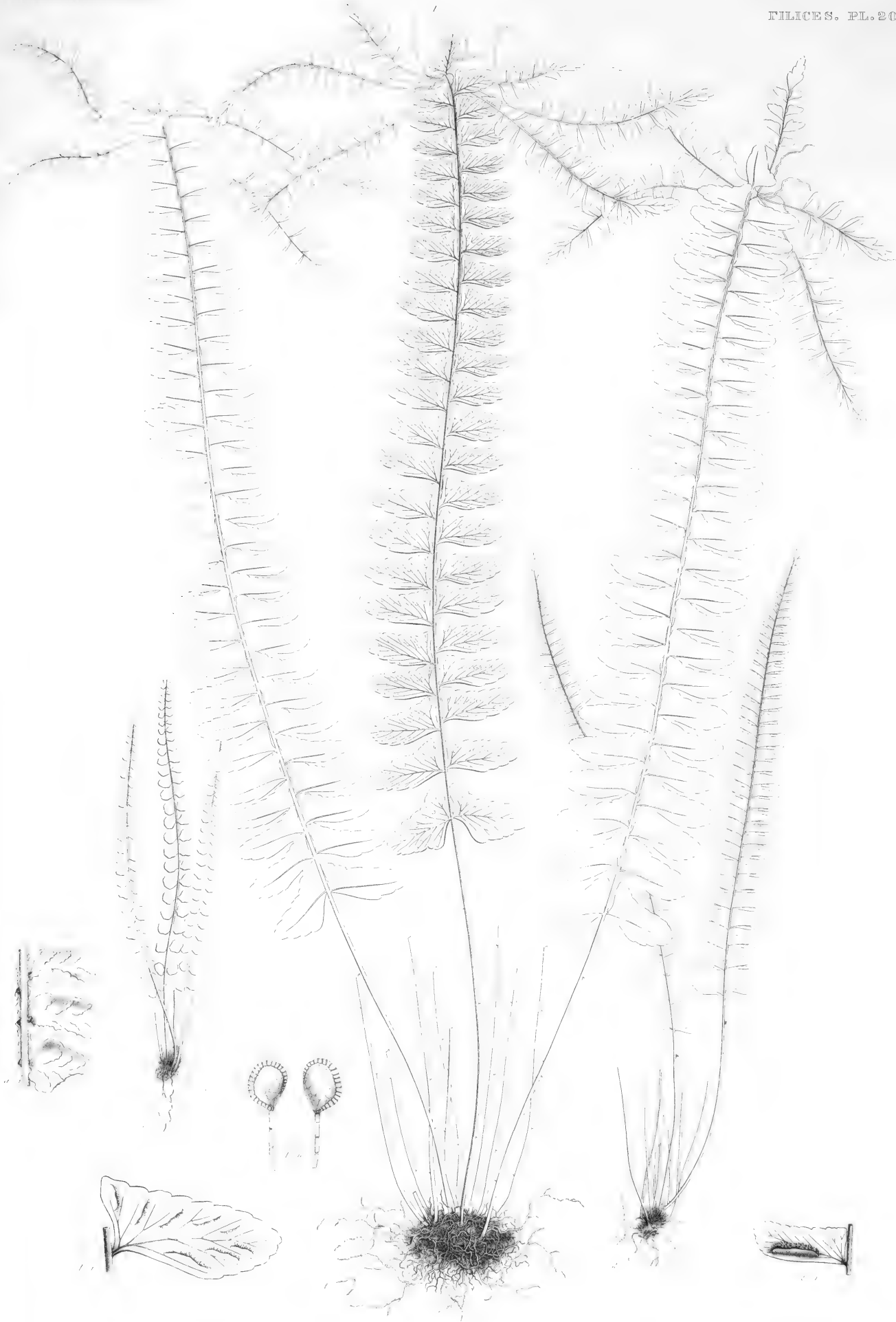




1. 1. a. b. Asplenium Feejeense.

2. 2. a. b. c. d. e. Asplenium Amboinense.



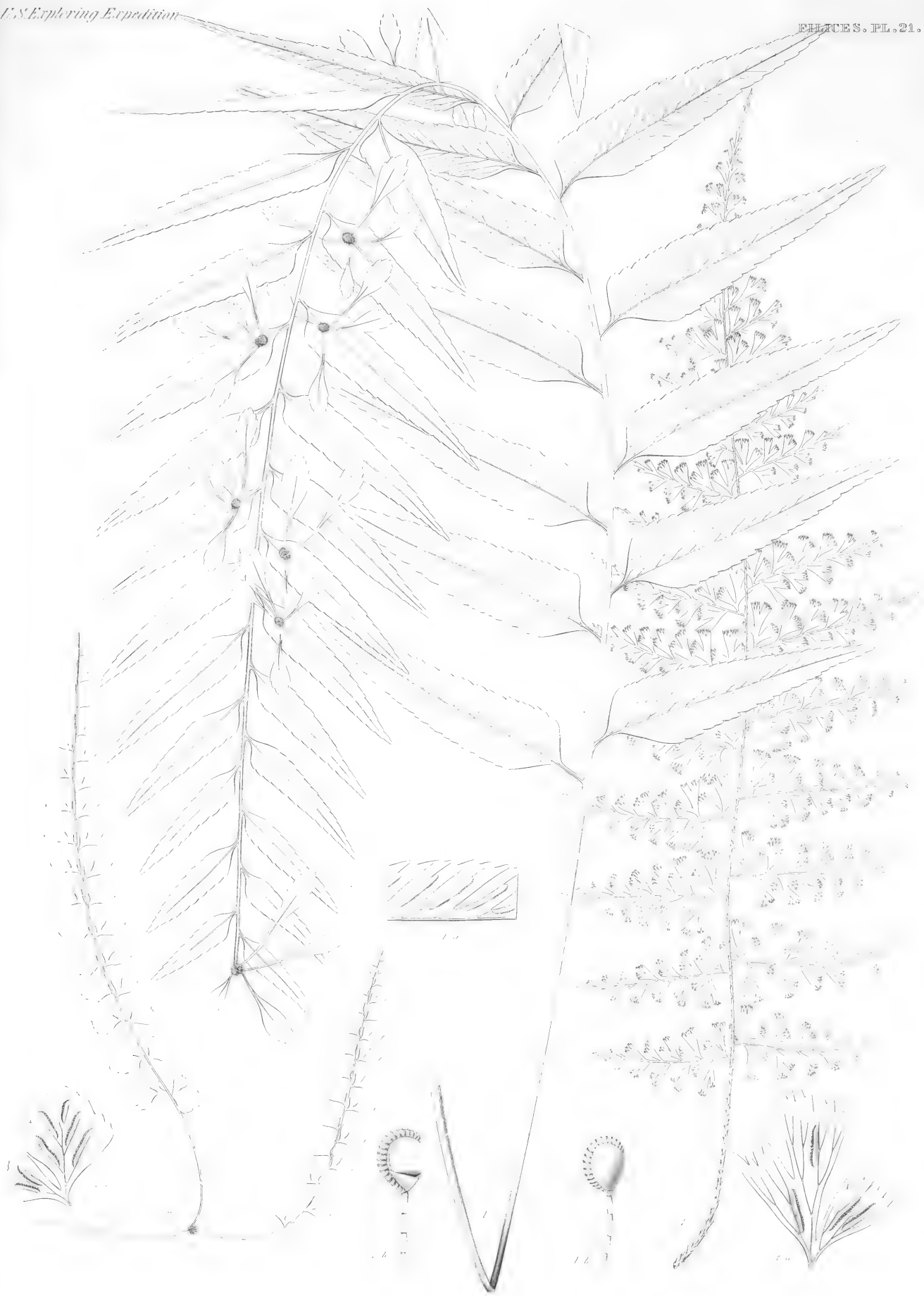


1. 1. a. b. *Asplenium pavonicum*.

2. 2. a. *Asplenium mouanthenum*. Sm.

3. 3. a. *Asplenium densum*.





1. 1 a.b. *Asplenium enatum*

2. 2 a. *Asplenium rhomboides*

3. 3 a. *Asplenium cristatum*





1. 1. a. b. c. d. *Asplenium fulcatum*. Var. β . *attenuatum*.

2. 2. a. b. c. d. *Asplenium insiticum*.





1. 1. a. b. *Asplenium strictum*.

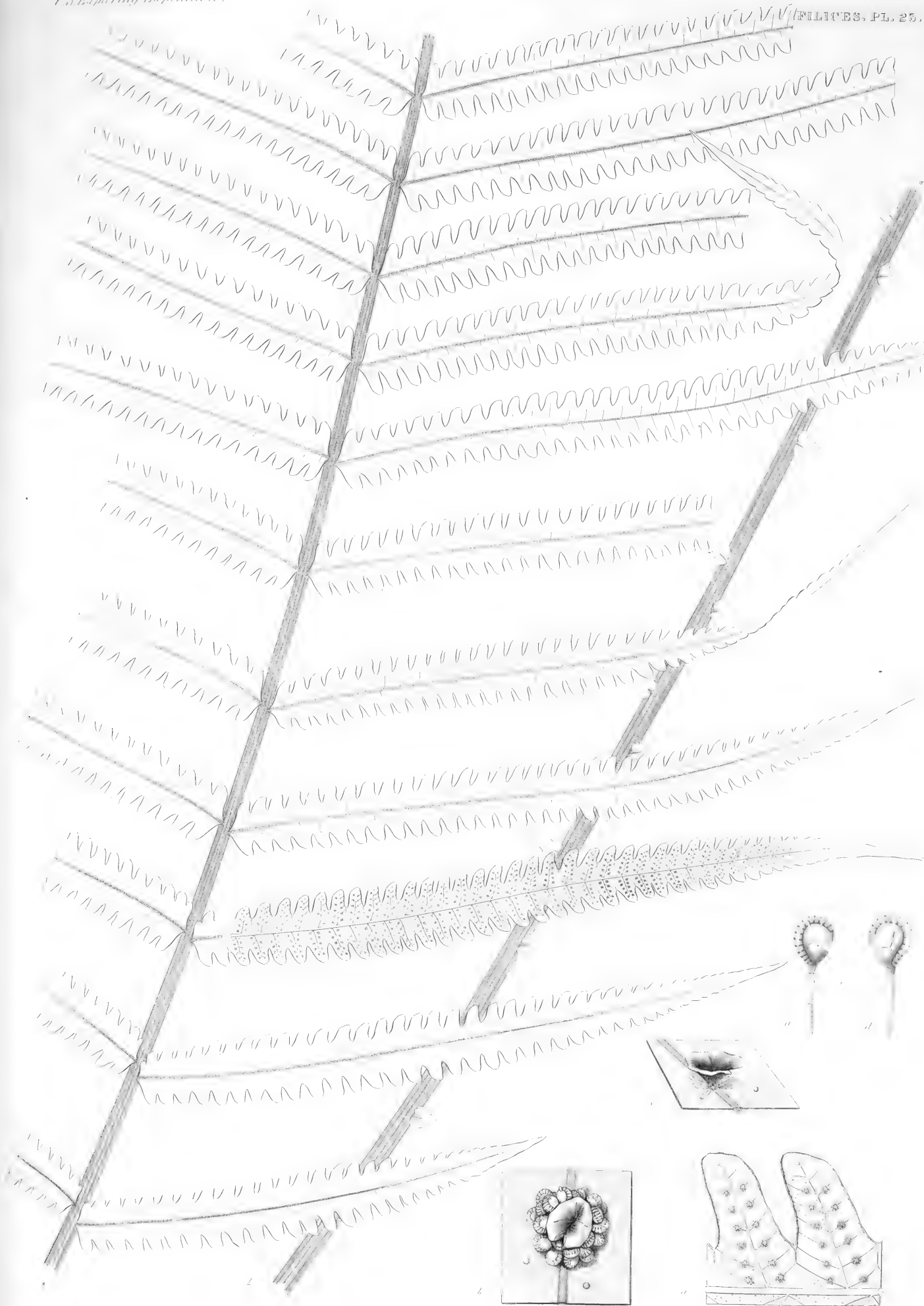
2. 2. a. b. b. *Asplenium multifidum*.





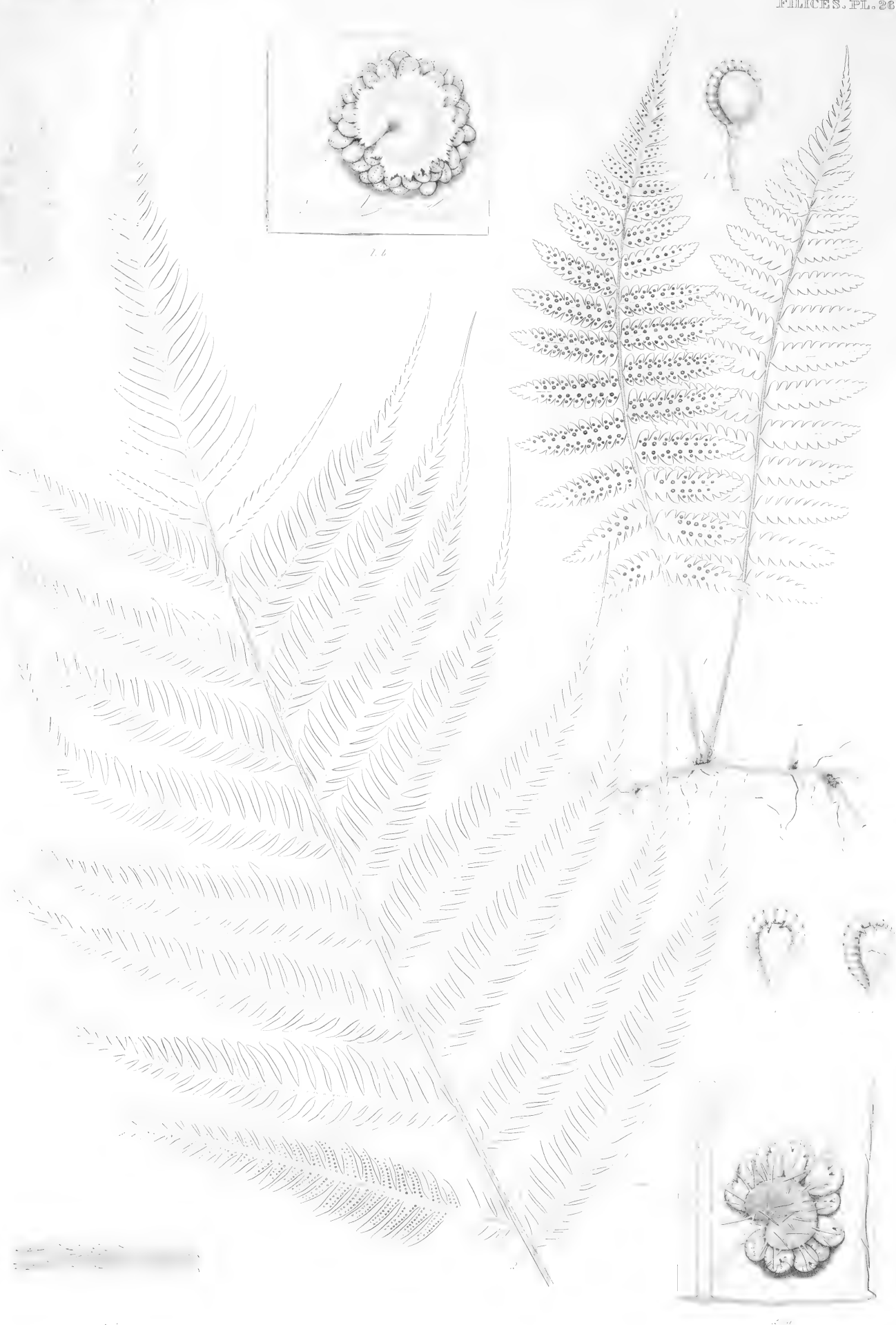
f. a. b. c. *Asplenium dissectum*





1. a b c d e. *Nephrodium Hudsonianum*.

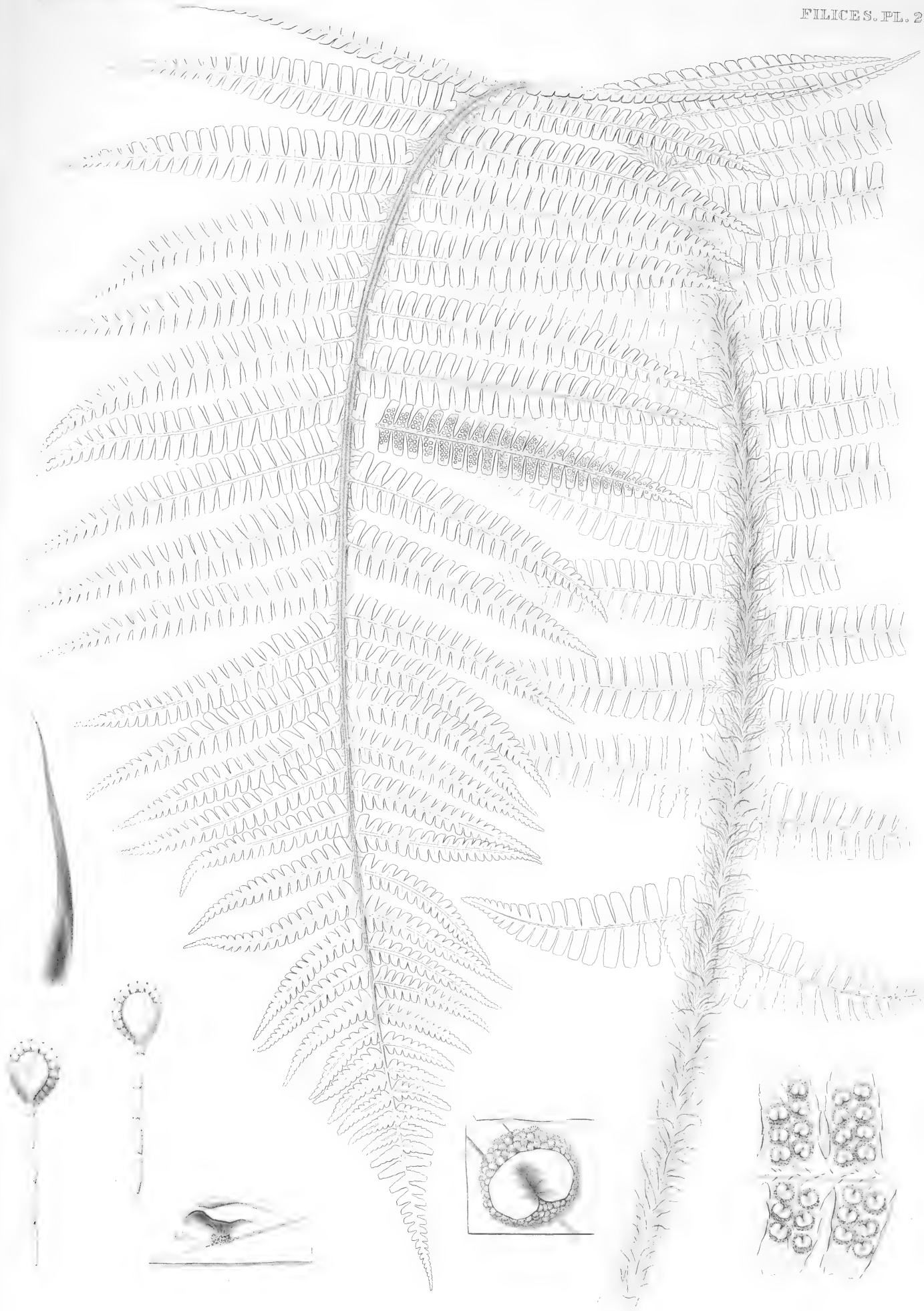




1. 1. a. b. c. *Lastrea articulata*.

2. 2. a. b. c. c. *Lastrea attenuata*.





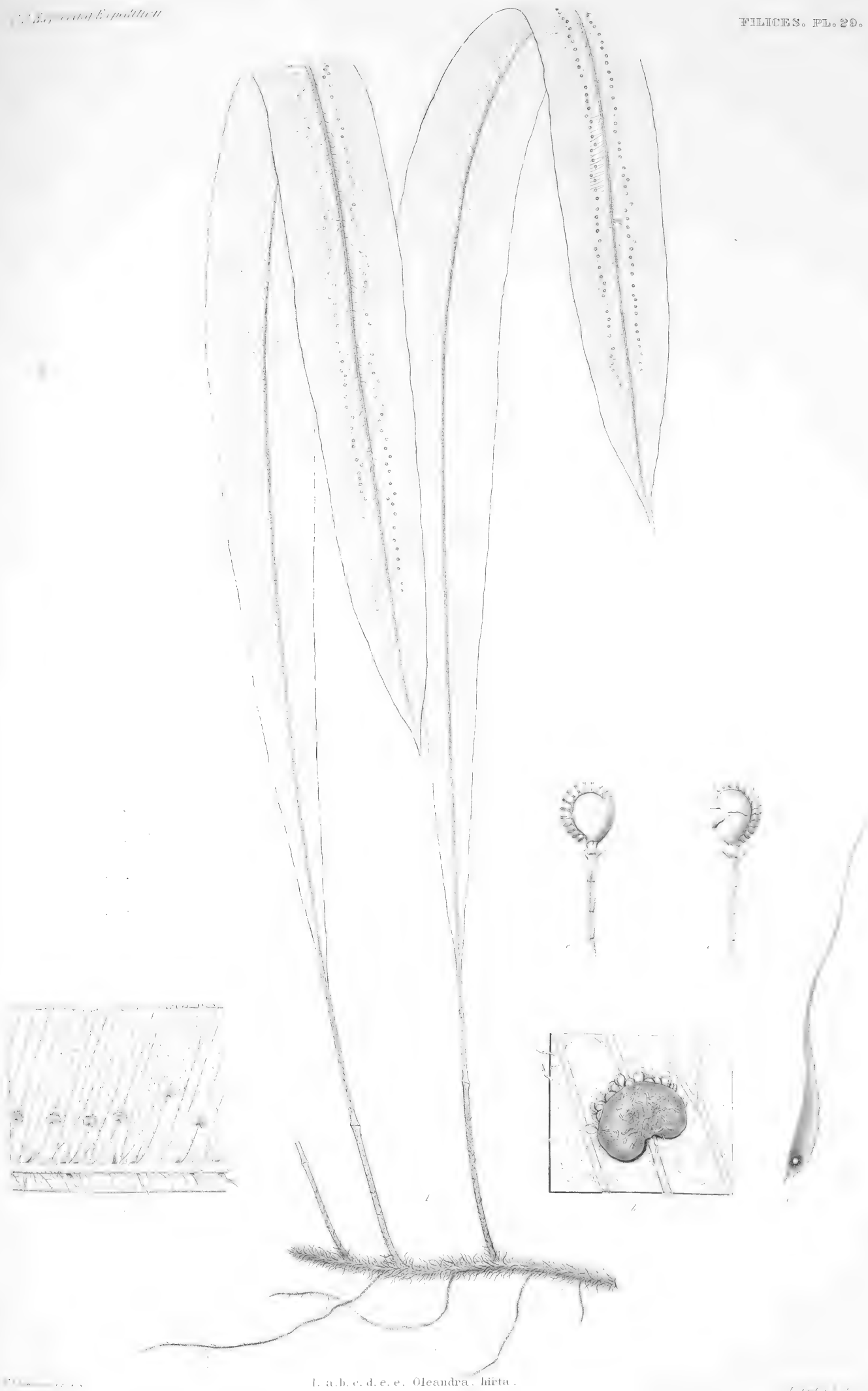
Asplenium Aspidium





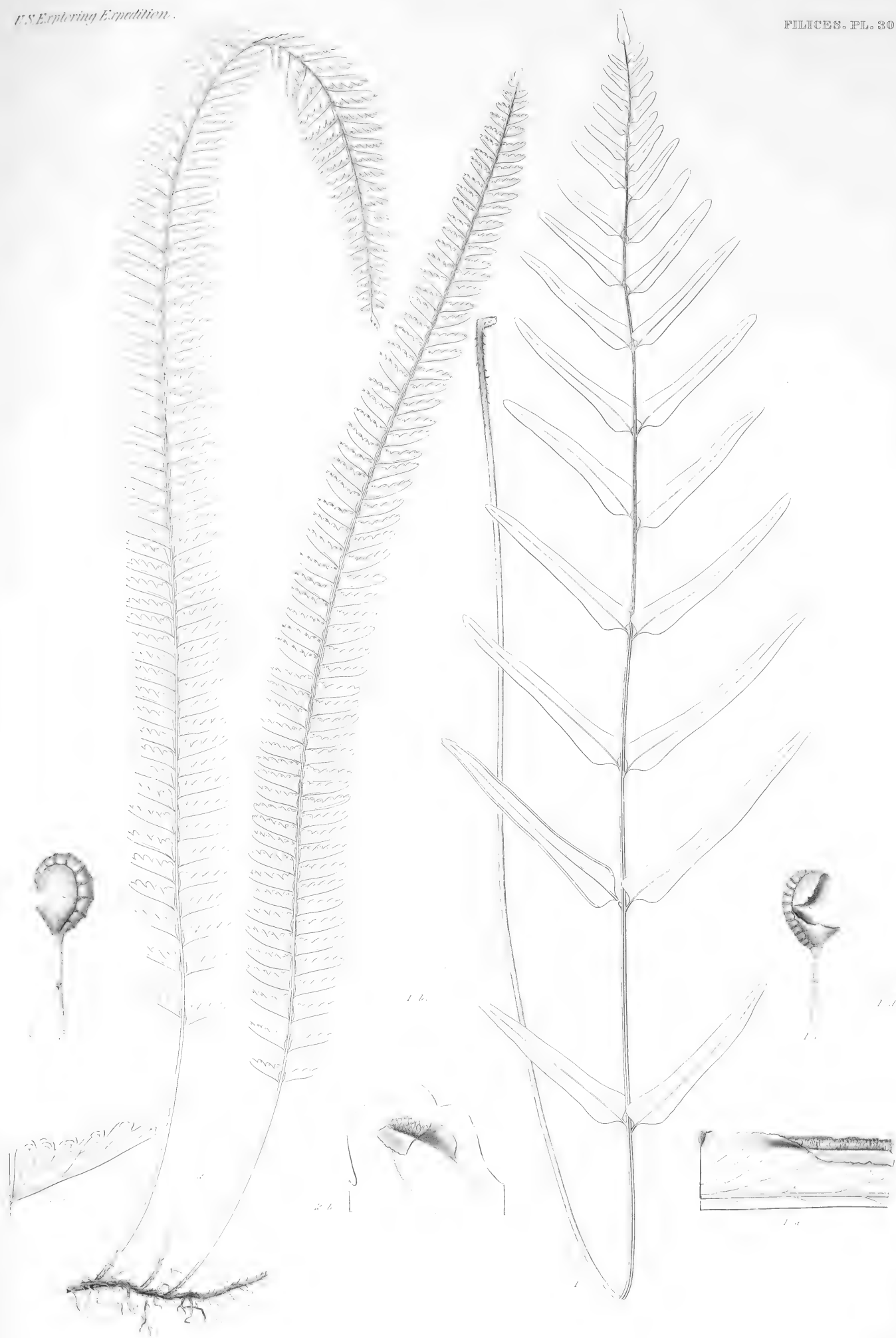
f. a. b. c. d. e. f. f. Polystichum Haleakalense.





1. a. b. c. d. e. e. *Oleandra hirta*.

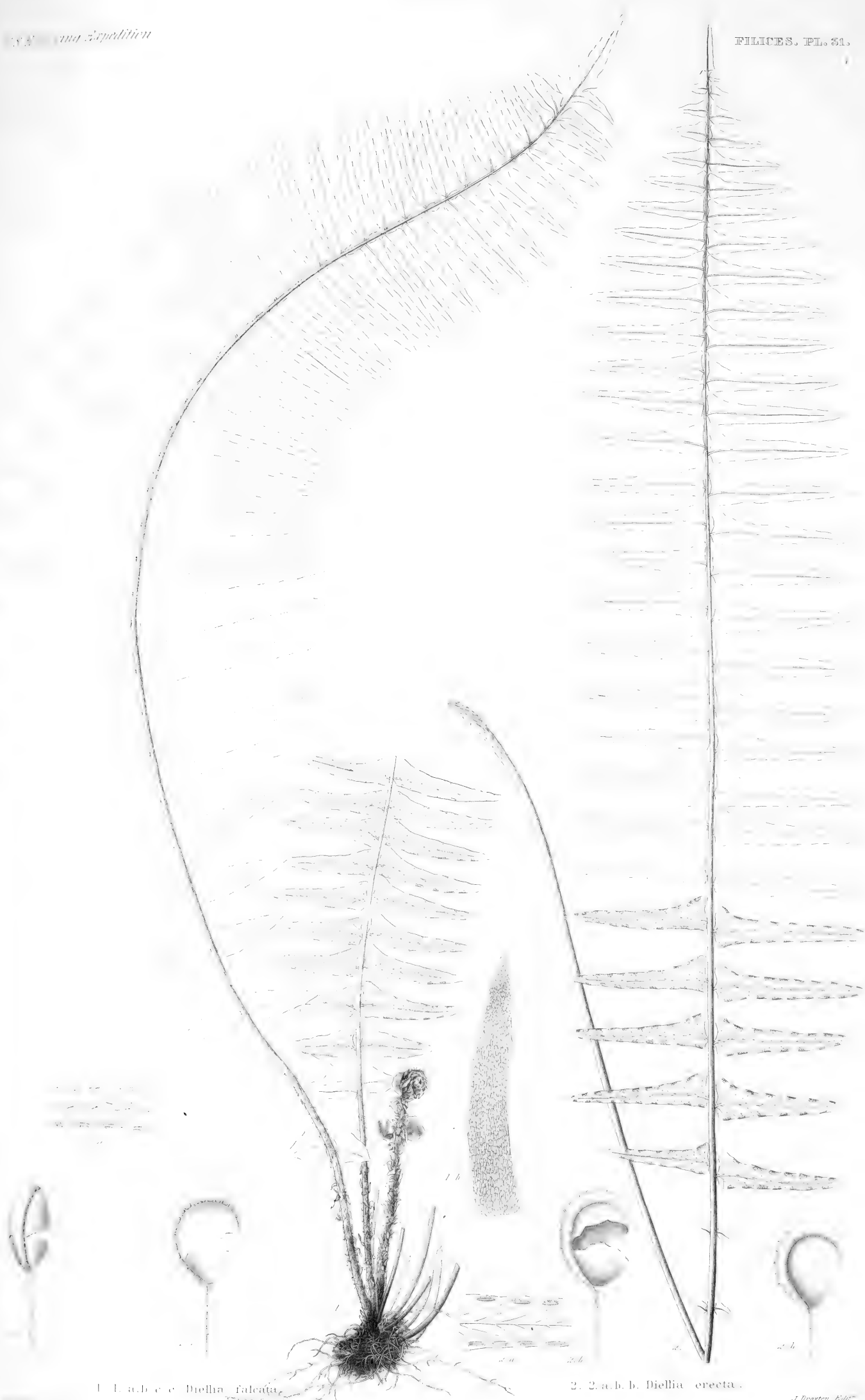




1. 1. a. b. c. d. *Schizoloma Agatii*.

2. 2. a. b. c. *Synaphlebium Pickeringii*.





1. 1. a. b. c. *Diellia falcata*.

2. 2. a. b. b. *Diellia erecta*.

J. Drayton. Edin.





1. 1. a. b. c. d. e. Humata polypodioides.

2. 2. a. b. c. d. Humata botrychioides.

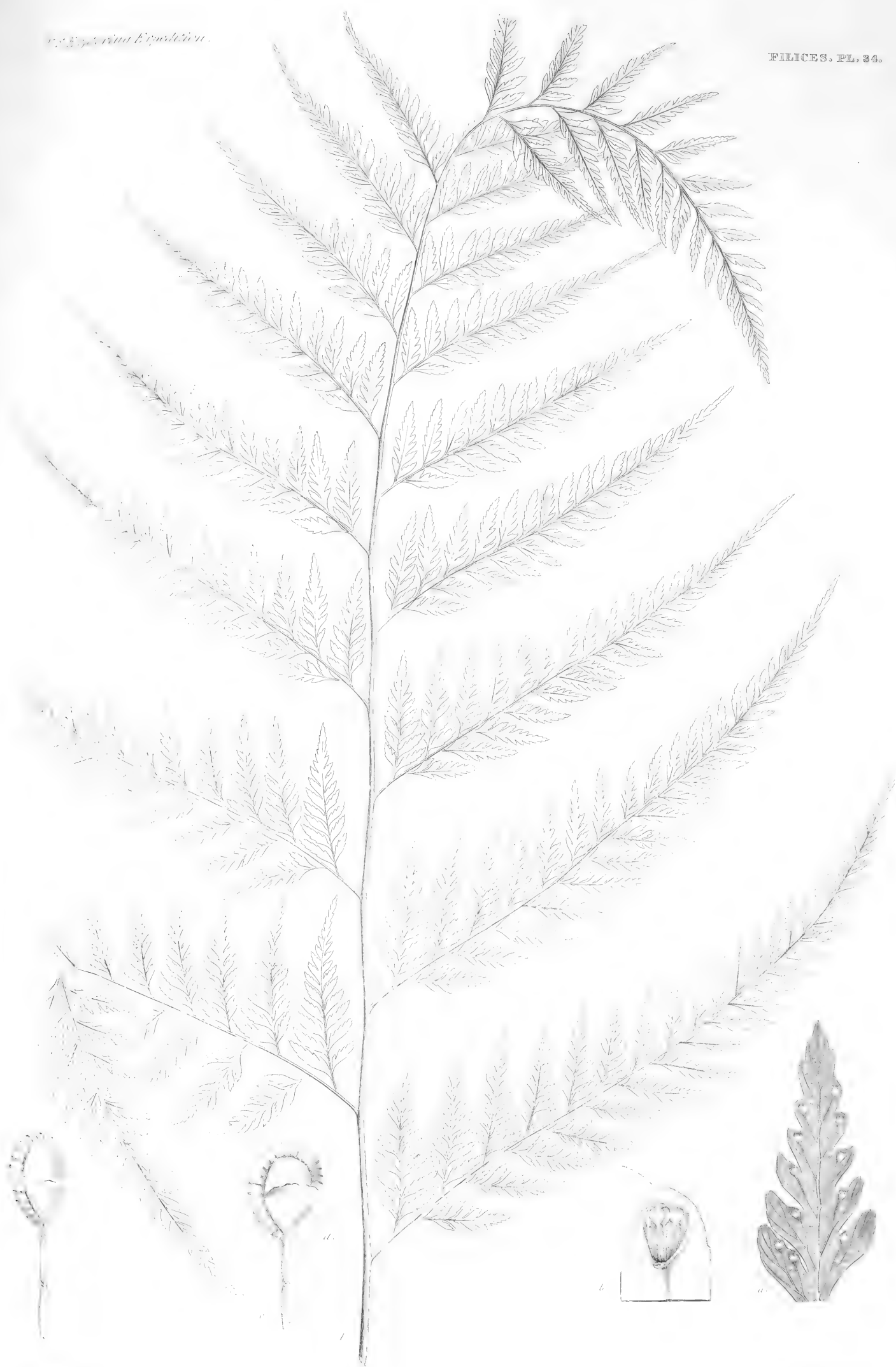




Tab. c. d. d. Microlepia macrospora, Var. minor.

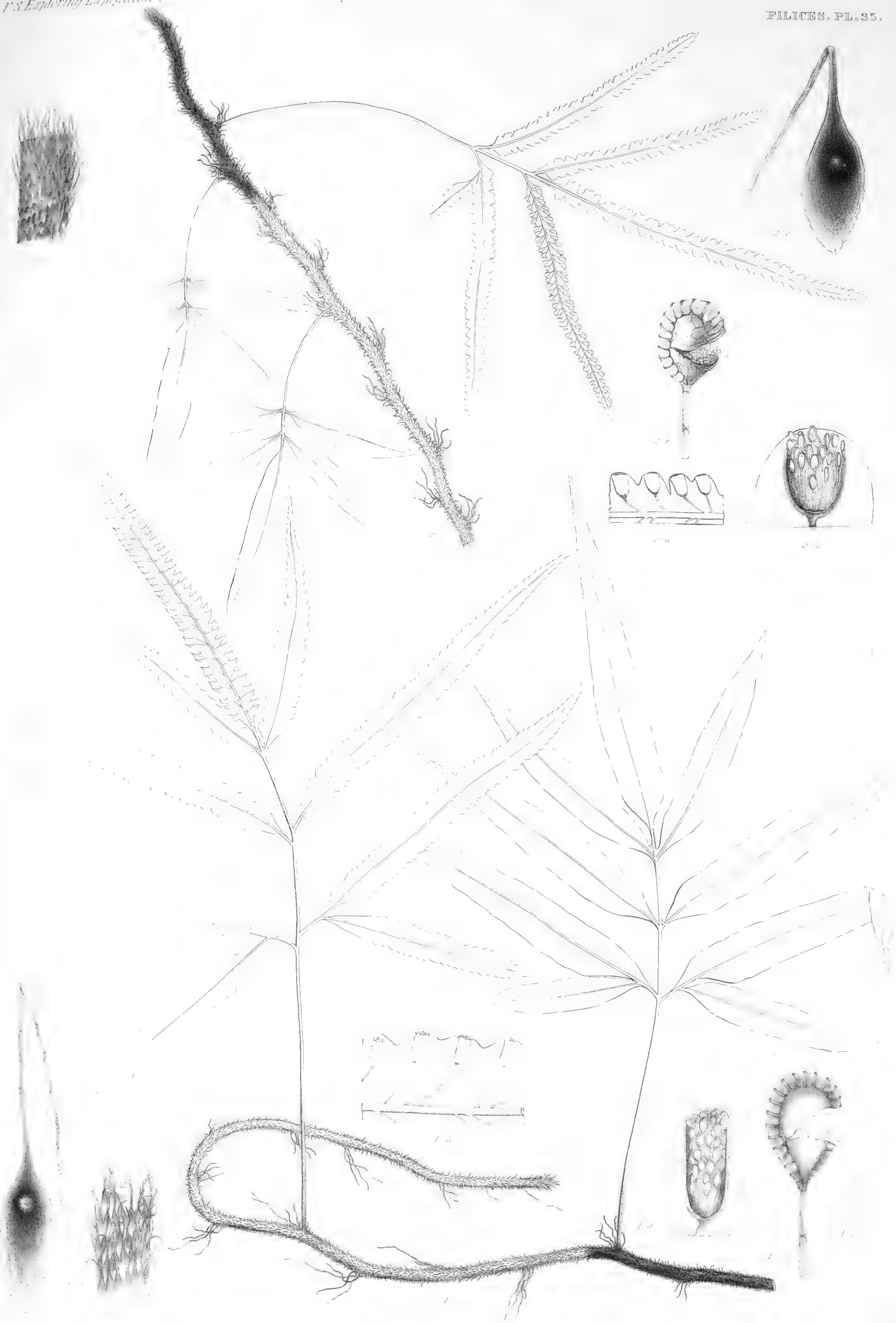
J. D. Hooker Ed.





1. a, b, c, d. *Microlepia papillosa*.





1. 1. a. b. c. d. e. f. *Davallia pentaphylla*.

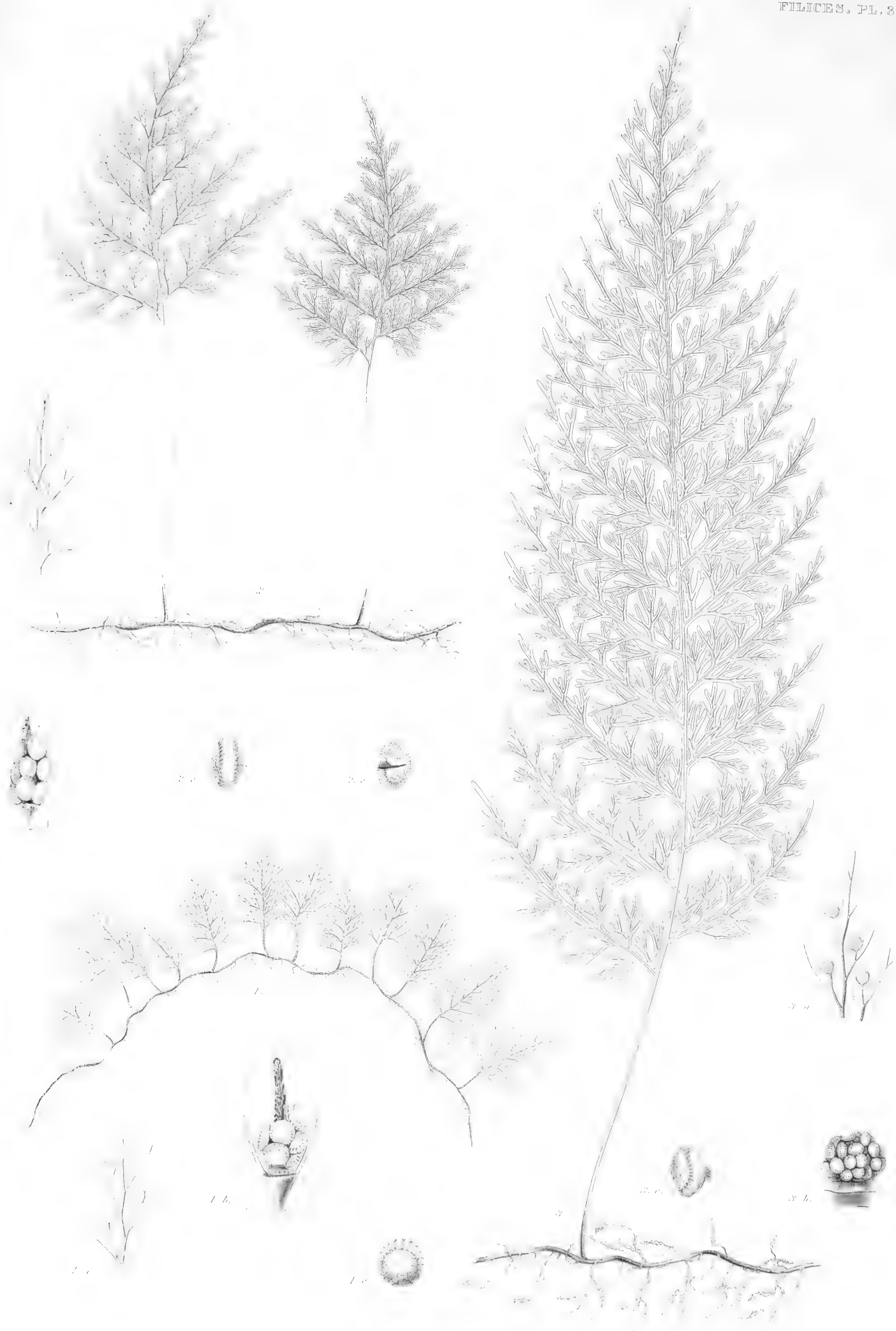
2. 2. a. b. c. d. e. *Davallia pycnocarpa*.



5. 5.a.b.c.e. *Trichomanes caudatum*

3. 3. a. Trichomanes Draytonianum .
4. 4. a. album . Blume.





1. 1. a. b. c. *Hymenophyllum affine*.

2. 2. a. b. c. *Hymenophyllum Feejeense*.

3. 3. a. b. c. *Hymenophyllum formosum*.

Wm. A. Nodding del.



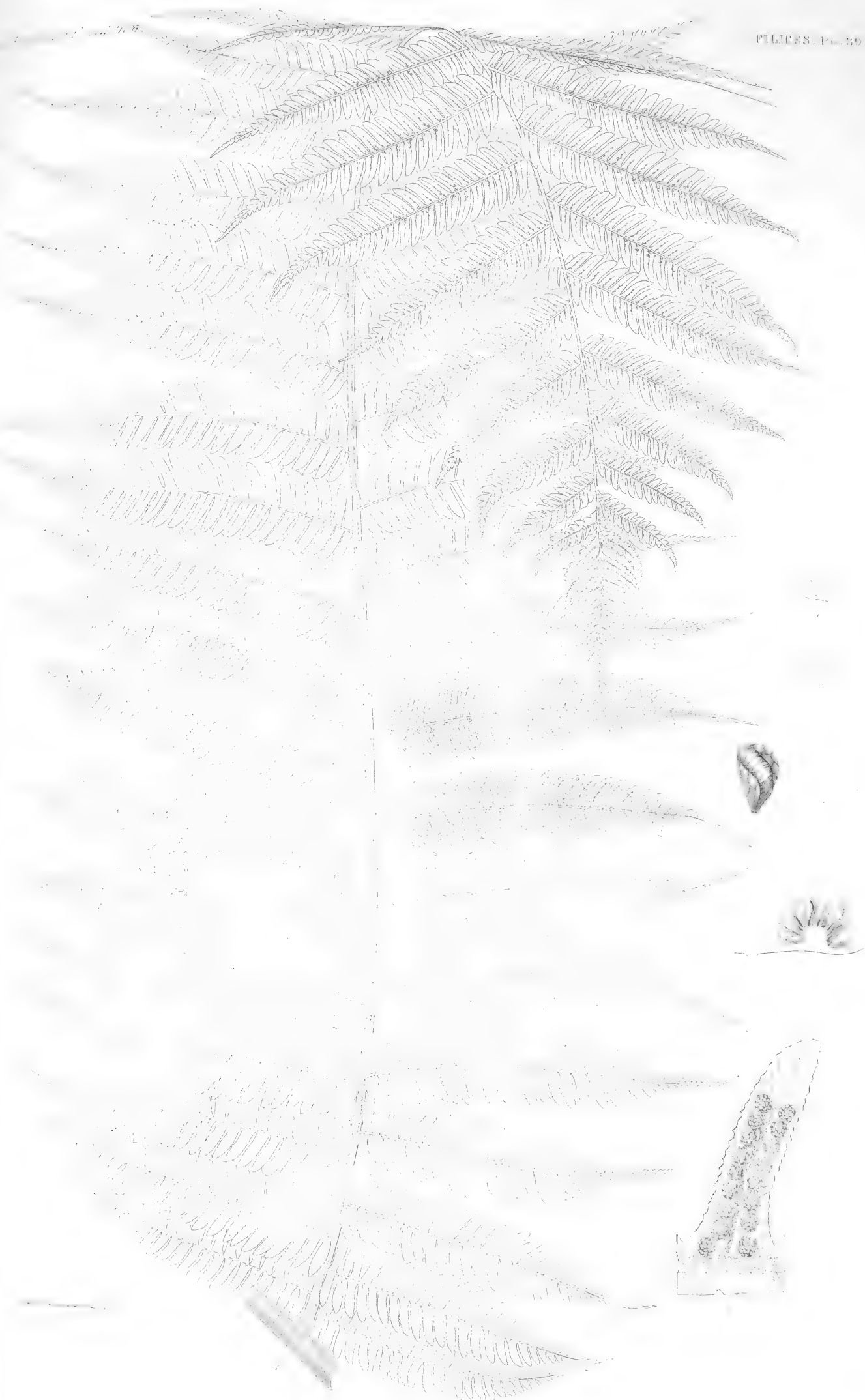


FILICES. PL. 32.

1. *Sitelobium Samoense*.

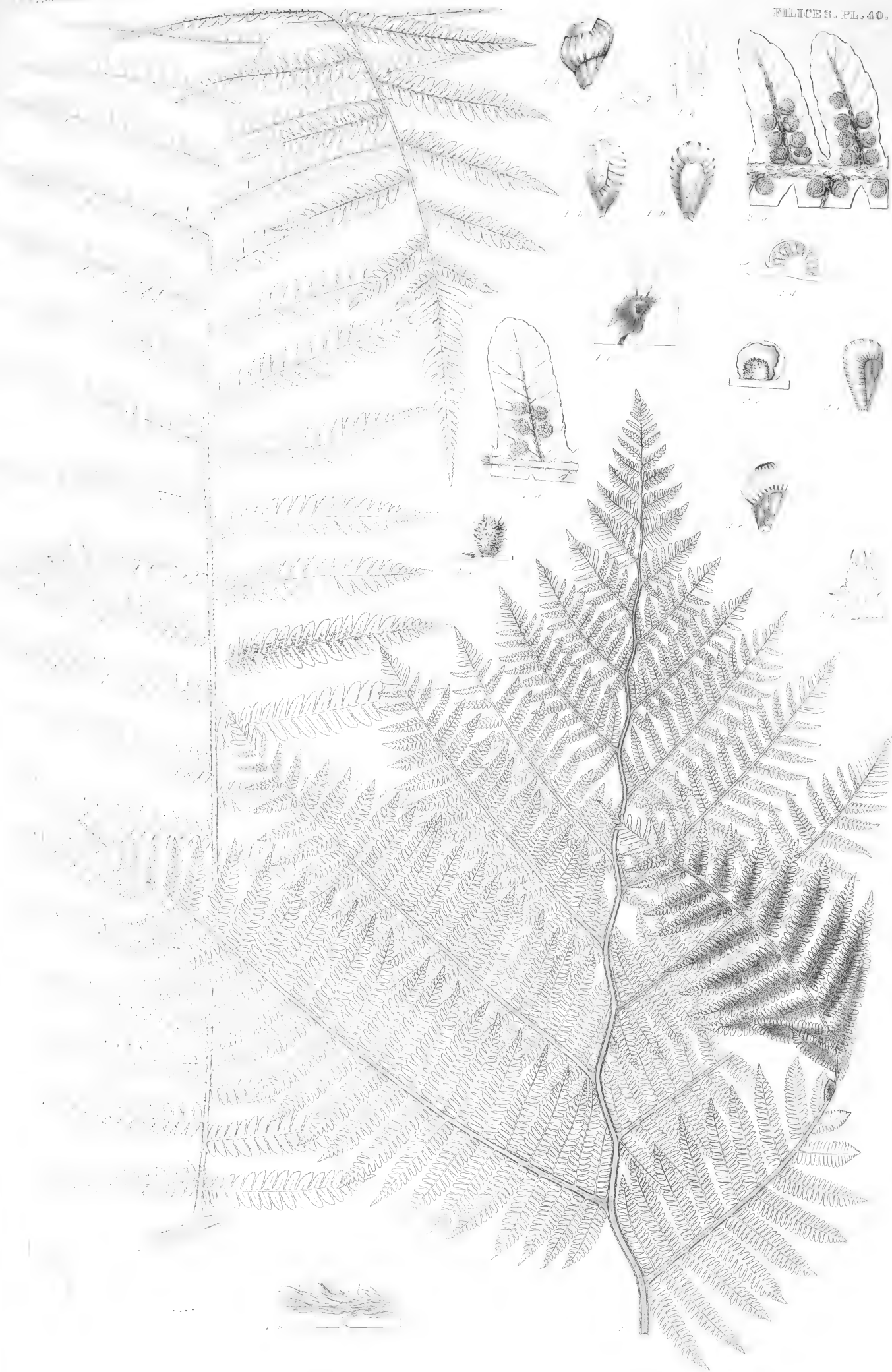
2. 2 a, b, c. *Dicksonia Torreyana*.





a b c d e f g *Alsophila imulata* a. 7



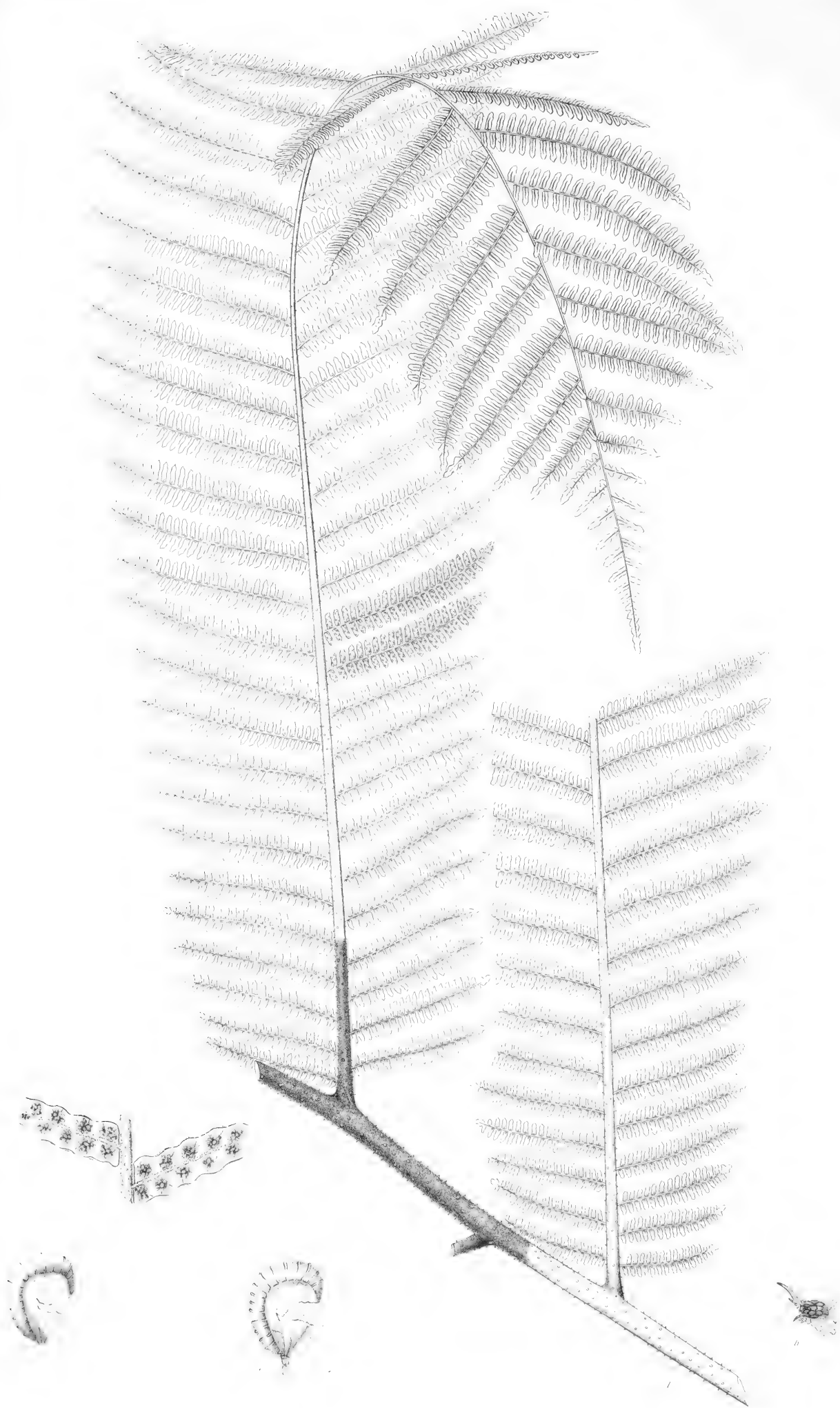


1. a. b. c. d. e. f. g. h. h. i. Alsophila Samoensis.

2. 2. a. b. c. d. e. e. Alsophila Tahitensis.

J. Draxton. Edin.

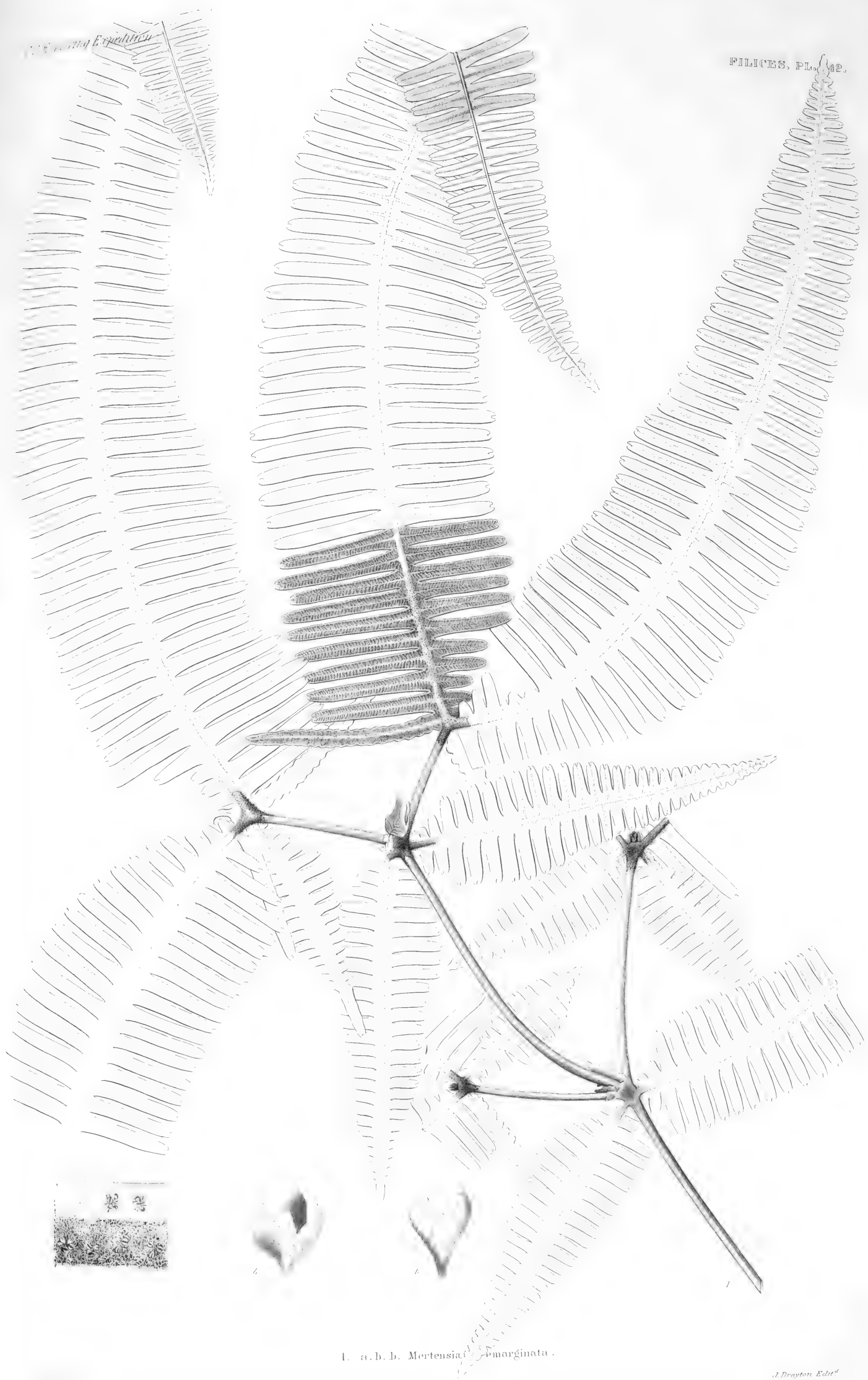




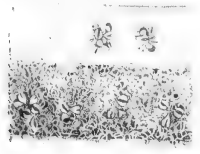
1. a.b.c.c. *Alsophila truncata*.

Alm. R.





FILICES, PL. 42.



1. a. b. b. Mertensiae - marginata.

J. Drayton Edit.





f. f. n. b. c. d. e. f. Todea Wilkesiana.

J. Drayton Ediz.



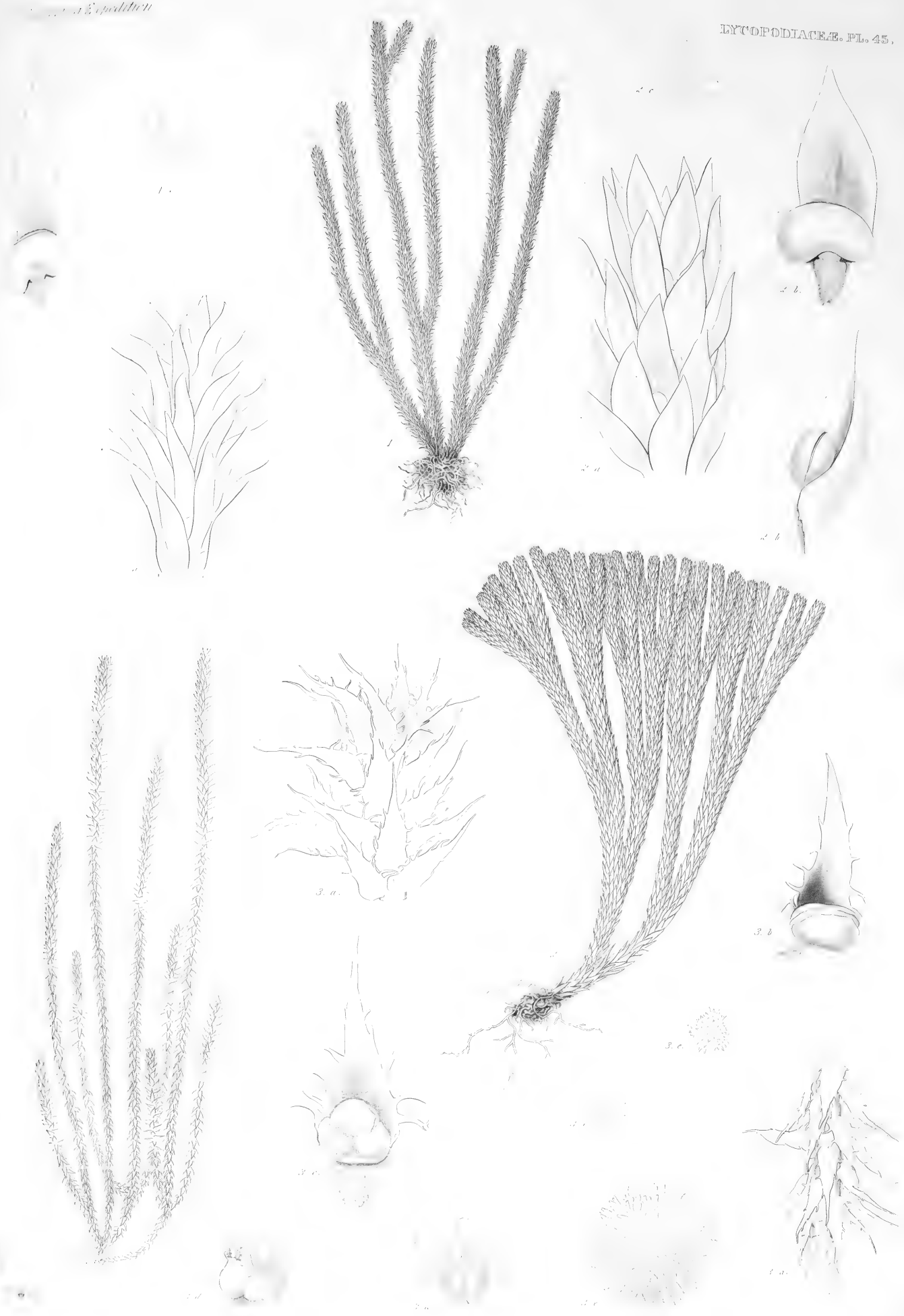


1. 1 a.b. *Ophioglossum concinnum*.

2. 2 a.b.c. *Botrychium subbifoliatum*.



Lycopodium



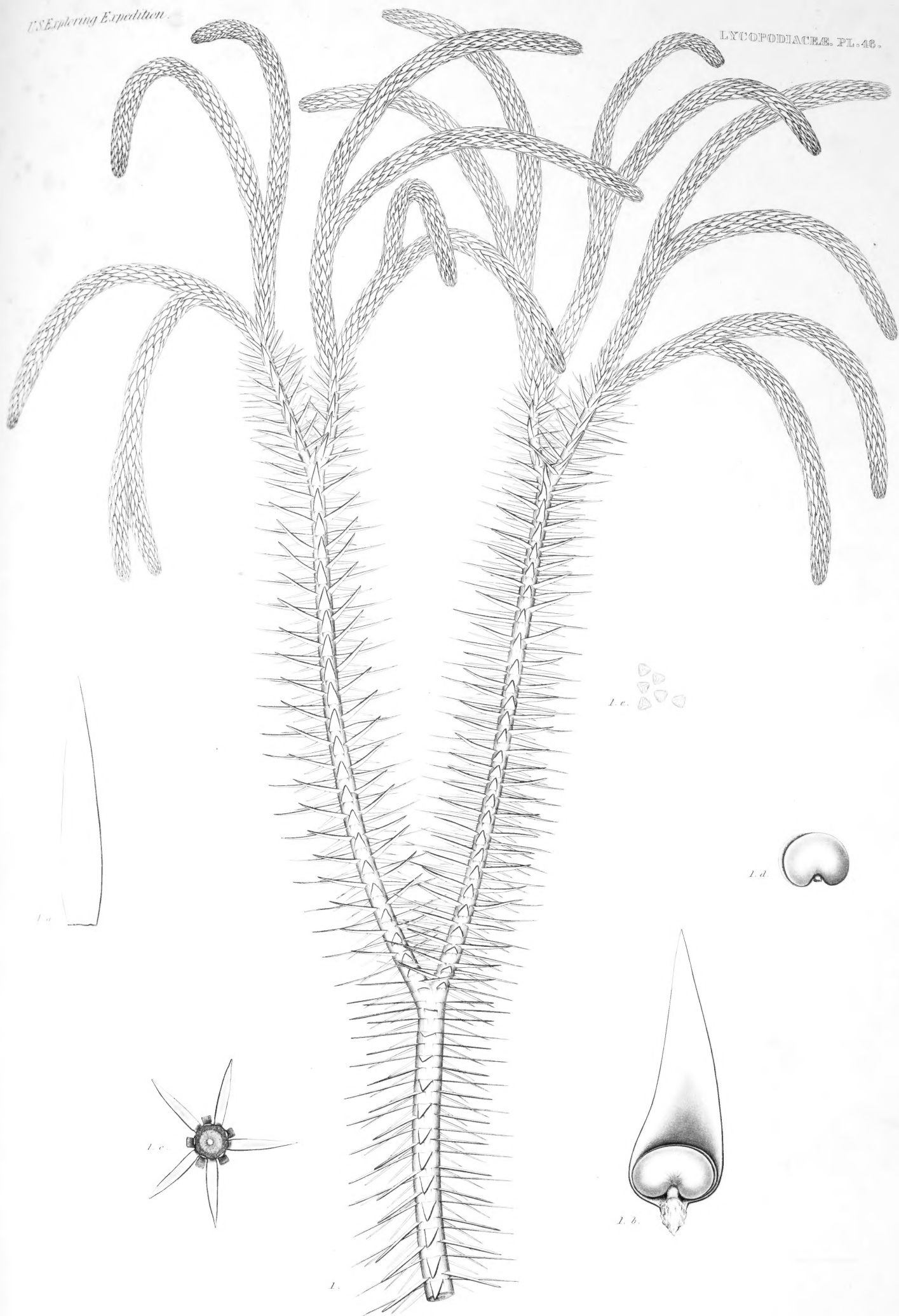
1. a. b. c. *Lycopodium erubescens*

2. 2. a. b. b. c. *Lycopodium Haleakalae*

3. 3. a. a. b. c. d. d. d. e. e. e. *Selaginella deflexa*

J. Drayton Edt.





1. a. b. c. d. e. *Lycopodium nutans*.

